XBOX ONE: FROM CRISIS TO CONTENDER

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THE DIVISION

HOW UBISOFT IS MAKING THE NEXT GENERATION'S HOTTEST PROSPECT

THE TROUBLE WITH SEX AND VIDEOGAMES

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THE DEMISE OF GRINDING

#259
NOVEMBER 2013



The landmark case of the people versus Microsoft

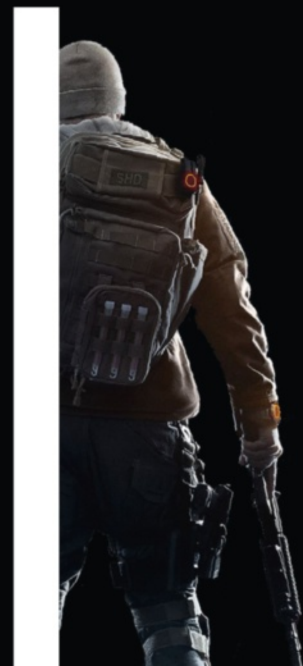
Whenever we're asked if our opinion of Xbox One has changed – and we're asked often – our answer is always the same: well, has Xbox One changed? And of course Microsoft's next-gen console has changed – substantially. The Xbox One that you will be able to purchase on November 22 is a decidedly different proposition to the one proudly shown off less than six months earlier at a hectic E3 in Los Angeles.



Given that the Internet is capable of making governments tremble by mobilising people in pursuit of common goals, it's no surprise to see how it can be utilised to change something as relatively piddling as policies on preowned games or the use of Kinect hardware. In 2013, the man in the street is more empowered – and feels more entitled as a consequence – than ever before. And so Xbox One's transformation has been shaped not by Microsoft's R&D department but by the audience the company wants to attract. Where once marketers looked to senior stakeholders within their organisations to provide guidance, today they increasingly look outward, to consumers. You don't even need the democratisation of a forelock-tugging Kickstarter campaign to discover what the masses think of your product – especially if what you're proposing comes across as being plain wrongheaded.

Xbox One's transmutation since its debut not only represents a crowd-sourcing exercise on a grand scale but also profound change for the game industry as a whole. In Knowledge, we talk to senior Xbox execs about how perception of the console has been altered, and consider how the revised strategy stands up against Sony's offering.

In Hype, we visit Sweden's Massive Entertainment to look at cover star *The Division*, the standout next-generation title from E3. If the twists of the console war still have you undecided, fear not: it's a formidable-looking game you'll be able to play on both PS4 and Xbox One.



games



Hype

Play





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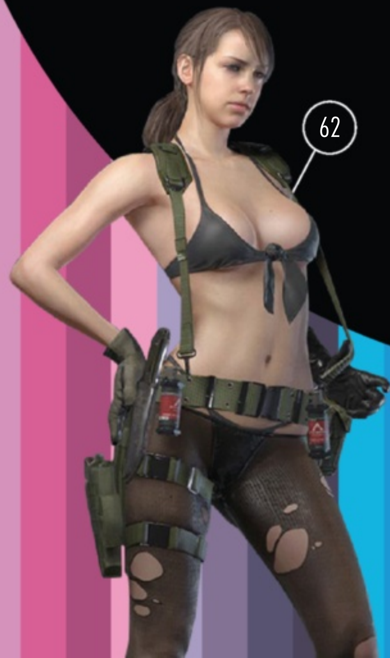


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VLEDGE

In **E**256 we measured Xbox One (1) against PlayStation 4 and found Microsoft's next-generation console wanting, but the Xbox launching in November isn't the Xbox announced in May, and on p10 we take another look at the next-generation console race. Meanwhile, as Microsoft and Sony prepare for war in the west, Eastern Europe is home to another kind of conflict: one won by the company that can give away the most games. Later this year, the phenomenally successful *World Of Tanks* (2) will meet its first serious competition when *War Thunder* is officially released for PC and PS4. We take a look at the new lines being drawn on the free-to-play battlefield on p16. On p18 the team at Dutch studio Digital Dreams discuss their puzzle platformer, *Metrico* (3), and the role it plays in Vita's growing indie scene. Just don't call it a puzzle platformer. From a game about design to design about games: artist/designer Matthew Kenyon reveals work from his forthcoming book Every Day Is Play (4) on p20. John McCain (5) loses at poker, Nintendo loses Bethesda and Arkane's Raphael Colantonio loses the goodwill of the videogame media on p22, and in My Favourite Game on p24 multi-talented musician Doug McDiarmid of American alternative hip-hop outfit WHY? (6) discusses a Mega Man-mimicking manager and taking inspiration from game music.



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The power of the crowd

Critical and consumer feedback make Xbox One a contender again

At August's Gamescom conference Sony Computer Entertainment's **Andrew House** gloated that "while others have shifted their message and changed their story, we were consistent in maintaining policies and a model that is fair and in tune with consumer desires".

The line garnered some laughs, but it ignored the very real effects of Microsoft's responses to its dialogues with gamers over the months since Xbox One's announcement. The company has worked hard to be seen to match Sony on every level, and in some respects may have even surpassed its competitor.

"I think when you create a vision of the future, you paint the vision of the future that you are most excited about," says Microsoft's **Phil Harrison**. "But we got clear feedback that some of the things we were proposing were perhaps a little too far into the future. So we changed. We took feedback from the community; we changed our plans. We think that's a good thing."







Xbox One will be packaged with Kinect, a controller, a headset, cables and a good old-fashioned power brick

Microsoft's policy reversals have been dramatic. Following a disastrous E3, it immediately cut Xbox One's insistence on a permanent Internet connection and 24-hour check-in for digital titles, as well as the system's region locking and restrictions on lending and reselling games. Negative feedback to an always-on Kinect – made especially troublesome in light of Microsoft's cooperation with the NSA's Prism programme – meant Kinect would no longer be required, even if you had no choice but to buy one with the console.

A headset found its way into the box, a self-publishing model for independent developers was revealed, and the messaging was improved and carefully reworded. Microsoft's Azure cloud technology was better explained with the mention of dedicated servers available for any game requiring them, indie development was opened up by the chance to turn any Xbox One into a devkit, and *Killer Instinct* was never a free-to-play game after all.

"Of course [the company's messaging problems] hurt in the short term," says **Ken Lobb**, partner creative director at Microsoft Game Studios. "We're not blind, right? Did they hurt in the long run? We're going to have to find out after we launch. We knew what we were going to do with indies. We knew what we were doing with *Killer Instinct*. But when someone comes in and asks a question about something we've decided we're intentionally not going to talk about until a certain date, sometimes you get half answers. There's no such thing as perfect PR."



Much has been said about Sony's DualShock 4 because it's such an improvement over its predecessor, which has left Xbox One's own controller upgrade in the shade. In reality, Microsoft's redesigned joypad deserves much recognition for improving on a classic design



YEAR ONE
After its spectacular hands-on debut at Gamescom, *Titanfall* 1 is Xbox One's system seller, but it will miss launch by several months. *Dead Rising 3* 2 is one of the key launch titles and is dramatically improved since its debut at E3, while *Ryse* and *Forza 5* 3 are the system's day-one graphical showpieces, even if only *Forza* looks like being any good. The end of 2014 will see the release of *Halo 5* 4 – the return of Microsoft's strongest platform exclusive









Xbox One uses Skype's audio codec and a much-improved connection between headset and controller for sharper voice chat

Yet Sony came dangerously close to a perfect PR campaign while Microsoft was busy making mistakes. Those areas where it had the edge, however, have been eroded by Microsoft's policy shifts. Today, PlayStation 4's most visible advantages lie in price and power, and on the latter point, many observers claim that the difference isn't as pronounced as was once suggested – at least when viewed in balance.

"[PS4's] DDR5 is basically 50 per cent more powerful than DDR3," says Gaijin Entertainment CEO **Anton Yudintsev**. "But the memory write is bigger on Xbox One. So it depends on what you're doing. PS4 is more powerful, but you can't just write to the memory, you need to read sometimes."

Xbox One now has more CPU power than PS4, while PS4 retains the advantage in GPU speed. "They maybe have a little more GPU," says Lobb. "We have eSRAM [embedded memory] and crazy bandwidth to that eSRAM. Which is going to be better in the long run from a developer [perspective]? We're going to see as the games go head to head. A lot of it will come down to – as always – which exclusive teams push a piece of hardware best."

> "A lot of it will come down to, as always, which exclusive teams push a piece of hardware best"

Here, right now, Microsoft has an edge. The £80 price disparity between the two consoles will be a decision maker for many, but for others, Microsoft's exclusives are more convincing than anything Sony has shown on PS4 to date. *Killzone* is no *Halo*; *DriveClub* doesn't look like measuring up to *Forza*; and *Dead Rising 3* now looks like a smarter bet for open-world mayhem than *Second Son*.

Even a second-tier title like *Ryse* makes a stronger case for its host hardware's graphical capabilities, at least, than anything set for PS4's launch day, while no next-generation multiplayer game can match Respawn's work on *Titanfall* – an exclusive secured with Microsoft's financial backing, and a game utterly reliant on the company's cloud to synchronise its AI and provide dedicated servers as and when needed. Microsoft's own studios and its willingness to open its chequebook has ensured that Xbox One has 12 months' worth of exclusives that stand against the best ever seen in a launch year.

But speak to the developers behind those games and they say that, for all the policy changes and new strategies, nothing has really changed at all. Removing mandatory Kinect? "All of the experiences of Xbox One that are better with Kinect – with voice, with gesture, with identity – are still fundamental parts of our platform," says Harrison. "They continue to be key parts of our strategy but we do understand there are cases where you want to take Xbox One into



a room where you don't have the ability to have Kinect set up, so we support the ability for the machine to function with Kinect disconnected."

And removing the mandatory online connection? "Thankfully it didn't change our development," says *Forza 5*'s creative director, **Dan Greenawalt**. "It wasn't what I expected – I'm just being honest there – but we had architected in such a way that it wasn't too difficult to make it work, even with the changes. If you only connect intermittently, you still get the benefit [of the cloud] because most of the number-crunching isn't happening in realtime, in a sense."

"Even when we thought the console would be always online, there's always a time when the connection goes down, so we always had plans for an unconnected experience. It didn't change anything for us, really," says *Kinect Sports Rivals* executive producer **Danny Isaac**. "We haven't changed anything," says Lobb of his teams. "One of the guys on my team is creative director on *Killer Instinct*, I've





Dan Greenawalt (top), creative director at Turn 10, and Danny Issac, executive producer on *Kinect Sports* at Rare



Q&A
Phil Harrison
Corporate vice president, Microsoft Interactive Entertainment Business

What did Microsoft lose by changing its always-online policy for Xbox One?
We took feedback from the community, we changed our plans and we now give players a choice. And I think that's the key, to give players a choice. They can play games on disc and have all the advantages that a disc-based game has in terms of trading, sharing and giving games. All of the benefits they've enjoyed in previous generations will accrue going forward. Or consumers can purchase games digitally and have all the benefits of the digital world. And those choices are up to the player, and I think that's great.

Presumably the always-online plans were three years in the making, while the offline plans took a week. Did that cause any problems internally?
I won't deny that there has been some impact to our engineering organisation to change some of the ways that our system works, but it has not changed our programme significantly.

Did the departure of Don Mattrick have an effect on the change of policy?
No.

What meetings were being had to put the brakes on something that had been so certain for so long?
I'm not sure I can give you a fly-on-the-wall documentary of every internal meeting, but what we remain committed to doing is building a platform for the long term. We want to build an entertainment platform that is the best place to play games, and has the biggest audience for developers to address so that their creativity can reach the most people. Anything that gets in the way of that vision is not going to be good for us, is not going to be good for the industry and not going to be good for the gamer. So we wanted to make sure that we came into Gamescom with a very clear set of objectives, which was to demonstrate that Xbox One is the best place to play games with the most amazing line-up we've ever seen for a console.

Is there a concern that future-looking technologies in Xbox One – the TV technology, for instance – are simply technologies that players don't want?
The proof is in the fact that, on Xbox 360, there were more hours spent consuming entertainment than playing online games, so history would suggest that that is not the case. That gamers enjoy the ability to play games, and that they want the best place to play games – I completely agree with you on that – but they also want the ability to have other capabilities within the device, whether it's playing Blu-ray movies, whether it's streaming TV, whether it's enjoying other kinds of media entertainment applications.

How successful have you been at Gamescom in addressing the negative feedback you received at E3?
We're here at Gamescom really looking forward. We're talking about the games that we have on Xbox One as being the best line-up ever… We are winning the games message. We had over 100 awards coming out of E3 for games on our platform. That is more than twice as many awards as any other platform. So the media recognised our games on Xbox One as being the best lineup – including *Titanfall*, which is the most awarded game in the history of E3, coming to Xbox One and to Xbox 360. So we feel great about the games message we have and we think that for players, if you want to have powerhouse franchises, Xbox One is the place to play. If you love football, Xbox One is the place to play because of our relationship with *FIFA 14* and the unique benefits that we have with FIFA Ultimate Team Legends. And we've now opened up our platform to bring all forms of creativity through the ID@Xbox programme. So I think that those are really powerful messages that we have wrapped into one week of news here at Gamescom.

Sony retains the advantage in price and European distribution. By skipping territories like The Netherlands, are you handing those territories to Sony?
It's very unfortunate that we've decided to skip a few markets this holiday, but we will catch up. We wanted to make sure that we delivered a complete product in every market that we launched – as complete as possible, with a great voice experience, and other benefits to players and consumers in those markets. I know that there'll be players disappointed in some countries and I apologise for that, but we will make sure we work super hard to catch up as quickly as we can. In the long run, in the life of Xbox One, I don't believe this will have any material impact.

Did your developers lose anything from any of the changes that have been made? And did they gain anything?
I think developers want to publish on the broadest possible platform, so developers are going to support anything that is going to continue the growth of our industry and continue the growth of our platform all around the world. We announced this week that Lionhead is bringing *Fable* to Xbox One with *Fable Legends*. Their vision for that game is really extraordinary, about using not just the power of the chips and the graphical capabilities in the most beautiful fantasy game I've ever seen, but also having it as a multiplayer online game, having it expandable through Smart Glass – it is the embodiment of many of the platform features that make Xbox One different and unique.



SELF ESTEEM
Microsoft chose Gamescom to announce its self-publishing plans for indies. Indie devs registered with Microsoft's ID@Xbox programme will receive two devkits and a suite of tools and instruction manuals. You build a game, submit the info to receive a Title ID, then upload it to Live's Marketplace. In the long term, Microsoft plans on making every console a devkit with a firmware update, and allowing everyone access to development tools. Were those plans a response to Sony's aggressive support of indie developers? "It actually predates my time at Microsoft," says Phil Harrison. "It goes [back] to the fundamental architectural decisions about how Xbox One was designed, the way the operating systems were designed, [and] the way Xbox Live Marketplace was designed for Xbox One. It was part of the vision for the platform from the very first sketches about what we wanted to achieve with this platform. We wanted to democratise development and there are things we're doing that are only possible because of the way the platform has been architected – particularly our vision that [it will eventually be possible to turn] every Xbox One retail kit into a devkit."

got Chris Novak over on *Ryse*; we've changed nothing. The only thing that's really changed is now you have to have your disc in when you play."

So if it was this easy to get things right, how did things go so wrong? "Because you want to change the world," says Harrison. "You want to influence the thinking of the world with your technology and the way technology is used. I think, in part [due to] feedback from the community, some of our more progressive or more ambitious digital plans have not landed as well as we'd hoped; all of which happened before we launched. We've made all of these changes that I expect will be long forgotten once we're off and running in the marketplace in November."

But Xbox One isn't ready yet. If price, power and games are where players will make their buying decisions, it's policies that will dictate exactly where developers make those games. "We have basically the same architecture this generation [on both consoles] and that means that you can compare them," says Yudintsev, whose free-to-play PC war game *War Thunder* will be a PS4 exclusive at launch.

> If price, power and games are where players will make decisions, policies will dictate where devs make games

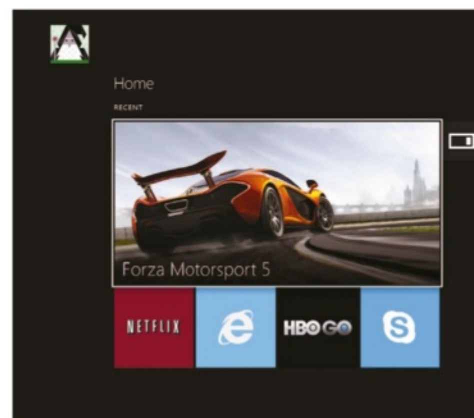
"But Microsoft… they have yet to decide how they're doing online free-to-play and self-published games. They're pretty far from that, even with their latest initiative. Sony allow us to make crossplatform games for PS4 and they allow us to make simultaneous updates.



That means there will be a lot of players from day one on PC [playing] with PS4 players. [Microsoft] need to stop talking and start doing something, because right now you need to certify your servers with Microsoft and it's not yet clear if you can make updates without Microsoft's [approval] – and that ruins the idea of online gaming, basically. They've said there'll be some kind of opportunity [for that], but haven't yet said exactly how it'll be working. I hope some day Microsoft will get there."

Those sentiments were echoed by many at Gamescom. Microsoft's policies worked in the current generation where Sony was equally restrictive, but in the next generation Sony's anything-goes approach has opened the door for a world of independent developers and free-to-play games. Microsoft's free Title Updates and new indie policies may lure away many of the temporary PS4 exclusives not directly funded by Sony, but without a few final changes to those strict certification requirements – none of which could be discussed by developers at Gamescom – Xbox One will receive fewer games in the long term.

But at last, the next generation is a prizefight again. PS4 has the power and the more attractive price; Xbox One has a more appealing slate of early games and a cloud infrastructure that will have

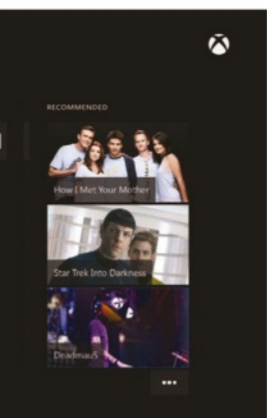


a tremendous bearing on its multiplayer offering. Microsoft has proven it can take advice and Xbox One is better for it, while losing only a little of what made it unique in the first place.

"The platform continues to have the same features that make it great," says Harrison. "It has the power of the cloud, the Xbox Live service, the largest online gaming service on the planet, and the proven operating system.

"We've made some architectural decisions in the way our platform is designed that make it really powerful, particularly around HDMI [in], where we can take a videostream from another device and blend that into Xbox One in a seamless, instant way. All that is going to create a really special platform, and ultimately it's about the games. And we have the best games." ■





FIFA 14 (top left) is free with Xbox One preorders in Europe. *Killer Instinct* (main) is at least one response to fans' demands that Microsoft got right from the beginning. Xbox One's interface (above) is only available in black, oddly denying consumers the usual customisation options

Q&A
Ken Lobb
Microsoft Studios' partner creative director



Xbox One now works offline, but is there a presumption from the studios that you're working with that generally people will be online?
Today we've got 40 million people on Live, or something like that, and I've been at Microsoft now for over 11 years. I worked on *Project Gotham 2*, I was there when *MechAssault* shipped, I was there basically when Live came up on [the original] Xbox. And ever since then, we've been making games that are online. I'm old school, I started learning how to play games from the arcade [and] I want to play with people. So Live is important to me. Playing online is important to me. I build games that are going to be fun for people to play online.

So your teams can still produce the same games the same way they always do?
Yes. If you think about *Killer Instinct,* it's unique in that we're shipping it with six characters and then the other two come after. And if someone's never connected? First of all, it's a digital game so if you're never connected you can't get it anyway. It's no difference to [my being] in Germany where I don't have wireless in my room: I can't play *Clash Of Clans*! So what did I do? I played a whole bunch of *Plants Vs Zombies 2*. So it's like, yes, the game will run if you're not connected but we're going to refine it, ship new stuff and it's going to be good, so connect! The box will even update silently in the middle of the night. So you will never see a Title Update. Ever.

And if you're not always online?
Let's say you're only playing *Killer Instinct* offline and six months later you connect: you're going to have to download that stuff before you can play with it. You can still play the version without the download but I just felt, as a developer, that I got a bunch of toys that I get to play with. And one of those toys is connected. And one of the new toys is connected and seamlessly updating. Connected to cloud computing? Yes, thank you. That's powerful. That's my perspective.

But for games that depend on the cloud for computation, surely those teams are having to rework the games they're working on?
It depends on what you're trying to do, right? If I'm making a game that's only for play online? [Then] use all the cloud computing you want. I think we're giving you a massive amount of compute for free. I think I [would] want to use that as a developer. I think I [would] want people to be able to connect and see the benefit. You make assumptions about someone's family: are they literally turning the box off at the switch? You have to be prepared for that. But if your game only runs with a massive amount of cloud computing in the background then you're going to have to be connected to play. [With] *Clash Of Clans* you have to be connected to the server or you can't play. It won't even load. So I connect.

Do you think the comparisons with PS4 have hurt you in the long run? And did they hurt you in the short term?
I do like people that are on the side of 'all games'. I like playing on my Vita, I'm buying a PlayStation 4 and I have a Wii U. So the kind of bickering between people of 'this versus that', to me that feels… not like a waste of time – I understand why people are passionate – but what was sad in my mind is we're shipping a box with a tonne of features and what you can't really do any more is say, "Here are the five bullet points!" Because someone's always going to ask you about seven, or 12. In terms of where the box [is] and how are our games, I couldn't be happier. And all I can ask from the fans is to take a look, and play our stuff!

Are you happy with Xbox One's price and power in comparison with PS4?
Your question is dangerous so I will answer it in a nice, safe way. Should all boxes be free and all power be infinite? Of course. This is what every consumer and developer is going to tell you. Period. We've got a box that's very powerful. Not to step on anybody – because I love all of my toys equally – but this [smacks of] 2005: "We're way more powerful!" I don't know who thought which [console] was more powerful last generation. A lot of it will come down to developers. And there are some amazing PS3 games. *The Last Of Us*. Awesome game. And clearly Naughty Dog pushed that machine. [Xbox One] is a very powerful platform – I guarantee you that we're going to see amazing things out of that.

How did the plans to turn every retail Xbox into a development kit manifest?
If you peer into the past, just take everything we did right and learned from on XBLA, everything we did right and learned from on XNA, and combine them together: that's the indie story we've got for Xbox One. And some of that is: how can you let everybody become a developer? At one end of the spectrum you get *Project Spark*, where it's Kodu – six-year-olds can make games. It's one of the best level editors I've ever played with. It's so easy to sculpt levels in *Spark*. We use Kodu to basically teach you everything about how to be a developer. Then jump to Unity, make your machine a devkit, make a game and put it on our store. Bring it. Go ahead and make millions. That's what we want.

Why the wait to turn retail boxes into development kits?
So at first we have dedicated devkits [and that's what we'll send to developers]. But the existing devkit is just an Xbox that's locked into development mode. The reason [for the delay] is that there's some work we had to finish on the back end before we could enable it. But the boxes we ship on day one are all ready to be turned into development kits right away.

How many of these changes that have been implemented in the past few months were not changes at all, but in fact were all part of the plan?
That's exactly the point on this one. The plan to turn a box into a devkit is [from] two years ago. It had to be. You don't just decide that we're just going to unlock the box magically and everyone can run unsecured code. We can do amazing things with this. We can whitelist players. We're doing this with *Killer Instinct*. I'm going to be shipping characters after we launch and I'm going to invite about 10,000 people to be the ones that help us balance them; the same way that we've been inviting Evo people to Double Helix.

I want to invite 10,000 really great players to help me lock down the balance on those last two characters. The way we do that is sort of like a mini version of what it means to be in devkit mode. What we'll do is send them a code that's whitelisted. They're the only ones that can play it. And, again, you don't architect that in minutes, this has been planned for years. So, yes, a lot of our 'alterations' in the last few months have just been us saying, "Now we get to explain to you [the things] we've had in mind all along."

One of the recent changes is that the clockspeed on the GPU has been cranked up. Where does that come from?
Because we can. And every generation of hardware has been no different, except for this time we've been a little 'look under the sheets'. I've been doing this since 1988, and every machine I've ever worked on gets refined before it gets launched. That's all that was. Everything's more transparent these days. So it's the fact that we told you that it was 800[MHz] that makes 853[MHz] news. If we hadn't told anybody it was 800, we would have shipped with 853 [and nobody would have known different].

Again, that sort of speaks to Microsoft's messaging problem. Getting the message out that Xbox has changed – how do you do that at this point?
We – us, Sony, anybody who launches a new piece of kit – are going to sell a certain amount to people that are passionate and build up hype. After that point, you buy based on what people are liking, not on [hearsay]. So my expectation is that, once we get just weeks after launch, people will be making the decision on PS4 and Xbox One not because of something somebody told them but because they went to a friend's house and they played. Or they saw some video online. It stops being about speculation and it starts being about, "Dude! did you play such-and-such?!"

This means war

The world's biggest online game, World Of Tanks, meets its match in War Thunder

World Of Tanks' success – with some 60 million registered users across the world – owes much to the sheer force of Wargaming.net CEO **Victor Kislyi**'s personality. Before the panzer MMOG launched he and his team toured the world, visiting every trade show, magazine and conference that would host them. Riding the game's success, Wargaming.net has grown from its home in Belarus to open offices around the world, and has added *World Of Warplanes* and *World Of Warships* to its free-to-play MMOG catalogue. But that's not good enough, says *War Thunder* developer Gaijin Entertainment.

"[Wargaming.net's] original Belarusian team has a passion [for] tanks," says Gaijin CEO **Anton Yudintsev**. "They created several games about tanks until they reached success with *World Of Tanks*. And then they had so much money that they just bought a company and said, 'Make [a plane game]'. And it's not working. We can see it in the results."

World Of Warplanes is the issue. While Wargaming.net makes separate land, sea and air combat games, Gaijin makes only one. *War Thunder* started with aviation, leaning on Gaijin's experience with *IL-2 Sturmovik: Birds Of Prey*, but will soon add tanks to its colossal maps, and later ships. All four games are free-to-play, and the studios fundamentally disagree on how best to represent WWII combat in a videogame.

"They're trying to clone their own success," says Gaijin's creative director **Kirill Yudintsev**. "But you just can't say, like they are saying, that planes are the same as tanks in the air. Most planes are not [designed] to fight other planes. There are tank killers and bombers. That's why you have to have ground [and naval] forces on the same map, but they want to separate them. They have no experience in making flight simulation games, no experience making full-scale games at all."







Wargaming.net CEO Victor Kislyi (top), Gaijin CEO Anton Yudintsev (centre) and Gaijin creative director Kirill Yudintsev (above)

Gaijin has the newer engine and more modern approach, but it doesn't have a Victor Kislyi on a year-long tour of the world, and it doesn't have *World Of Tanks*' head start. "The key word would be 'persistence'," says Kislyi when asked about *World Of Tanks*' success. "We broke the curse of free-to-play being low-quality stuff from the eastern part of the world. We showed – not just us but other companies like Riot Games – that, yes, in the west you can make triple-A titles and make them free. It took a couple of years but now you can see the results. We're glad to see many other companies jumped to the train, using *World Of Tanks* as an example, and now you can see a lot of copycats in different genres and even with tanks themselves."

> "Google is free, Facebook is free, CNN.com is free, so there is no way back to subscriptions"

Gaijin would dispute its position as a copycat, of course – stating quite the opposite. "We offered [Wargaming.net the chance] to publish our game and they declined," says Anton. "They said they don't believe in the success of flight-sim games," says Kirill. "And we had tanks from the very first alpha of our game. In *IL-2 Sturmovik* we had tanks. In *Birds Of Steel* we had tanks."

But for all their disagreements, the studios share a similar story. The studios are just 450 miles apart from Moscow to Minsk – a short distance in the former Soviet Union – and they came very close to working together back in 2008, and both share a passion for military history and simulation. "They are friends of ours," says Anton. "We published one of their games in Russia before *World Of Tanks*. Nobody was believing in their success. When nobody believed in *World Of Tanks*, we believed in it."

And they had to, because Gaijin was already planning *World Of Planes*: the game that would become *War Thunder* when the studio's ambitions grew. *War Thunder*'s open beta has attracted three million players, and the numbers for both it and *World Of Tanks* can only grow as the games expand onto consoles. Wargaming.net is backing Xbox 360; Gaijin PlayStation 4, where its modern engine can shine.

In terms of numbers, *World Of Tanks* is the biggest game in the world, even if a great many of those 60 million owners aren't actively playing. Its upstart rival is just getting started, and for all that they disagree on, both studios are committed to free-to-play and to chasing the same fanatic players who made *World Of Tanks* so popular. "Free-to-play is the only way to be that size," says Kirill. "And it's not just about money; it's the opportunity to make a gameplay experience of that kind. You need thousands of players just to make a match and free-to-play gets [them] playing."

"In the 21st century we live in digital times," says Kislyi. "Google is free, Facebook is free, CNN.com is free, so there is no way back to subscriptions, no way back to boxes. I don't see any reason why a company should not consider free-to-play for their next big game." ■









WAR THUNDER
The Yudintsev brothers are justifiably proud of *War Thunder*'s engine, rendering maps that are miles wide with draw distances to the horizon and accommodating even the ancient GeForce 6800 series of graphics cards. "It won't look so good but it's basically running on a toaster," says Anton, who is very critical of Wargaming.net's licensed BigWorld engine. "Our technology is not ten years old, and we're using our own engine. And of course it's challenging to make a very small detailed level [for three types of unit]. I mean, compared to *World Of Tanks*, it's challenging."

WARGAMING.NET
What Wargaming.net lacks in technology it makes up for in community support and local knowledge. "The good news for us is that tanks happen to be this universal boy's dream," says Kislyi. "But operation-wise, payment-system-wise, the way you promote and the way you present the game is different [in each territory]. In the east for example, pay-to-win is still a viable concept. That's changing, but rich kids' parents would just pay thousands of dollars and boom! [They can] dominate the battlefield. But Russians want equality to the extreme. They both love tanks, but [the] community management is very different."









Revitalised

How infographic-obsessed indie puzzler Metrico found a home on PlayStation Vita

Don't call *Metrico* a puzzle platformer. "We hate the term," says Digital Dreams' lead designer, **Geert 'Gene' Nellen**, through clenched teeth. "There are a lot of puzzle platformers. We try to avoid [the term] – but you've said it and now it's too late."

Metrico is a Vita-exclusive 'action puzzler', then. The quiet highlight of Sony's independent games booth at Gamescom 2013, in *Metrico* every step must be measured and considered against the environment. How you move affects the shape of the world: bar charts rise and fall based on your movements across the X axis, peaks and troughs form as you climb the Y axis, and the world is reshaped based on your movements.

Quickly, the game introduces new rules. Perhaps moving right appears to raise a platform by a single percentage point with each step, but the platform quickly grows too high to reach. So how can the player move right *without* affecting the statistics?

"I feel some puzzle platformers are a bit gimmicky," says Nellen. "They're cool, but we have the feeling that *Metrico*'s mechanics are just a little bit different than [those in] other games. I don't like us to be put in a box and I hope it stands out that way… and also aesthetically. People associate [data representation] with Excel sheets, PowerPoint presentations and boring stuff, but they can be beautiful, so why not make a game with infographics?"

If *Metrico*'s look – shown in beta form on the facing page – is one way it stands out, then the other defining features go beyond the game. *Metrico* was backed by Sony with an initial sum that allowed Nellen, tech director **Thijmen Bink** and level designer **Roy van de Mortel** to form Digital Dreams in Utrecht, The Netherlands and spend the past year working on *Metrico* full time. When the game is released, Sony will recoup those costs from the initial sales until the moment the game enters profit. "[After that] we get everything except the platform holder's cut," says Nellen.

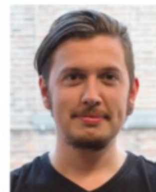
Sony's deal guarantees exclusivity, which guarantees Digital Dreams' ability to exploit its home platform to the full. While many of Vita's indie blockbusters originated on PC and mobile platforms, *Metrico* is built for Vita and does things only Vita can allow it to do. "We want people to think about everything they're doing that they normally don't think about; and also what they're doing with the device," says Nellen. "Thinking [literally] outside of the box is the most important thing about the game. Like in *Metal Gear Solid*, where you had to change the port when you were fighting Psycho Mantis, or *Zelda*, when you had to fold the DS to get the stamp to the other side. I just really like that."

> "We want people to think about everything they're doing that they normally don't think about"

Without Sony's support there would be no *Metrico*. Nellen and van de Mortel hail from the Utrecht School Of Arts, and Bink joined later after responding to an advertisement. The team shares the Dutch Game Garden building with Vlambeer, Headcandy, Abbey Games and Ronimo Games, putting them at the centre of the Dutch indie scene. "All those guys are good friends and we just walk to each other's offices and say, 'Play this and just check it out'," says Nellen.





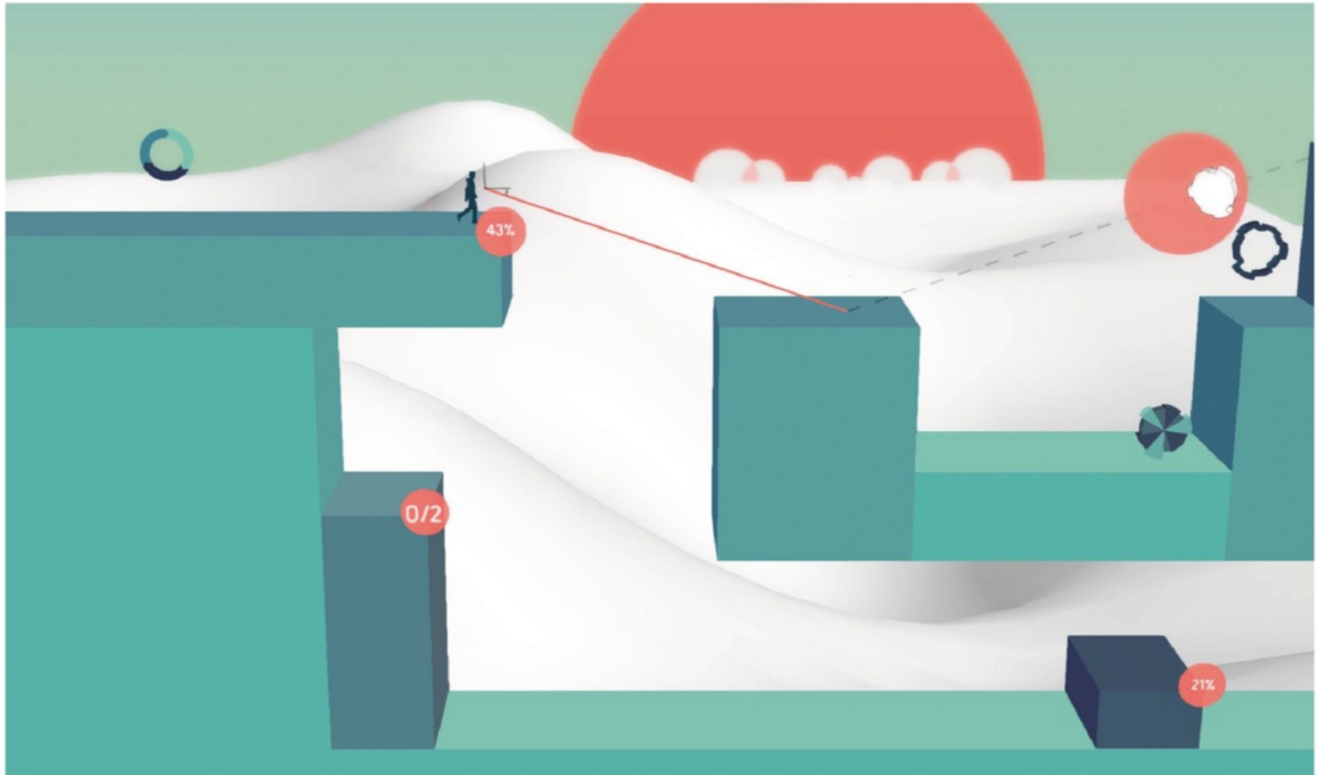


Digital Dreams' lead designer Geert 'Gene' Nellen (top), tech director Thijmen Bink (centre), and level designer Roy van de Mortel (above)

While Microsoft was the first to view Digital Dreams' prototype, Sony won the team over. "We were introduced [to Microsoft] very early and they said, 'It's really cool', but then everything got really slow, and Sony was faster," says Nellen. "They had a lot of faith in us and we want to repay that," adds Bink. "But not just that. They're helping us with so many small things… especially at the start with Vita, we had some trouble with getting the right engine, we had to experiment a lot. They pointed us in directions, gave us lines to follow. We couldn't ask for better support in that way."

"We're here, for starters," says Nellen, extending his arms to denote their presence at Gamescom. "[Sony has] helped us so much with getting the game on the show floor, and obviously we didn't have any money to get a stand here. They're just there when we need them, and in the case of Gamescom they mailed us five minutes before we were about to ask them if we could get a spot and said, 'We're looking at who wants to be on the floor – are you interested?'"

The announcement of Sony's Vita TV console may be of little benefit to Digital Dreams, which is using every feature of Vita from its motion sensors to its touch panel, but Vita's uncertain future isn't daunting to them. "The most interesting thing to me is that people who have a Vita are really devoted to it," says Bink. "There's an average of 12 installed games on a Vita, which is very high. And we don't have a budget like Guerrilla has with *Killzone: Mercenary*. They're going to have a hard time making their money back, but if we sell 10,000 copies we're in the clear, and Sony's backing us so even that's not an issue. If we sell one-tenth of what *Killzone*'s selling, we'll be extremely happy and stinking rich." ■







The intention is to make players consider their actions in the game by applying dramatic spatial shifts to small character movements. New interactions are added as players progress, eventually encompassing every possible Vita input

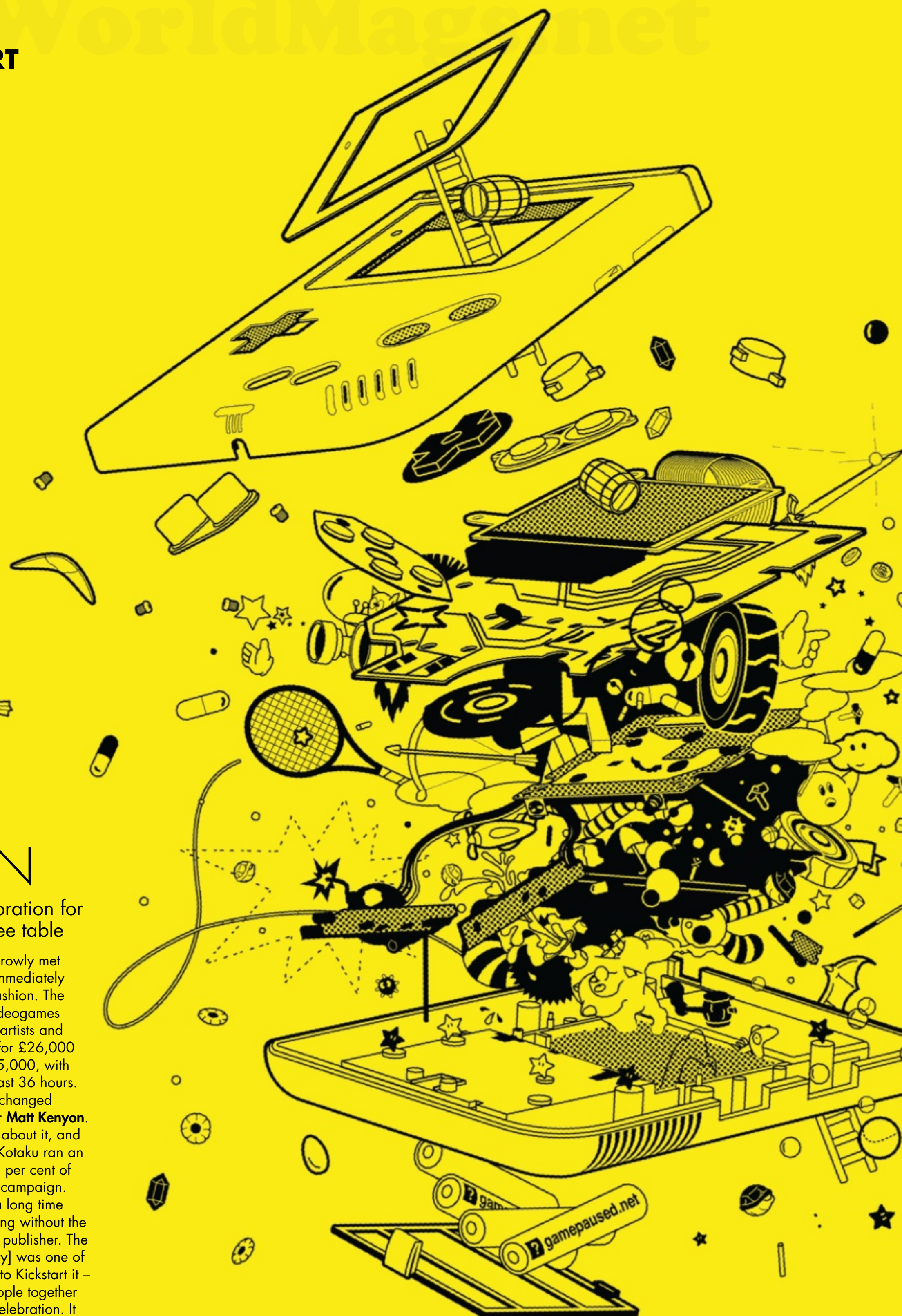


THE WAY BACK

Vita's return to relevance



Vita was built as a 'PS3 in your pocket', loaded with big-name blockbusters from the industry's top names. Funny, then, that Vita has found new life thanks to the army of independent developers Sony has cultivated over the past 24 months, each representing another strike against the notion that Vita has too few games. Vita's other problem – price – will soon be countered by Sony's new slimmer Vita, and its entry into the microconsole market with the Vita TV console. While Ouya and GameStick look to promote their devices as the home of indie games, Sony has them beat with the best developers, best hardware design, and a five-million-player userbase that can only grow.



PLAY ON

A videogame celebration for the discerning coffee table

Every Day Is Play only narrowly met its Kickstarter goal, then immediately surpassed it in dramatic fashion. The book, which celebrates videogames with work from dozens of artists and designers, initially aimed for £26,000 but ultimately reached £35,000, with £17,000 pledged in the last 36 hours.

"The final days really changed everything," says designer **Matt Kenyon**. "Creative Review tweeted about it, and 36 hours before the end, Kotaku ran an article that added over 15 per cent of the total by the end of the campaign.

"I'd had the idea for a long time and wanted to do something without the restrictions of a client or a publisher. The Famicom 30th [anniversary] was one of the things that pushed me to Kickstart it – I think getting all these people together in one book adds to this celebration. It will be a great piece of gaming history."

The work featured on this page, by Kenyon and Rob Cooper, is one of around 250 pieces in the book, which will be in the hands of backers in early 2014, prior to a wider release. ■

Soundbytes

Game commentary in snack-sized mouthfuls



"Now that the news is out, we'll be contacted left and right by press sneak fucks who will want to know more. **Please don't answer any of their requests."**

Arkane's **Raphael Colantonio** elaborates on 'no comment' in a leaked email regarding *Prey 2*



"[Microsoft was] scared that *Heavy Rain* was about kids being kidnapped. They said, 'This is an issue, we want to change it.' Well, we could have kidnapped cats but it would be a different experience!"

David Cage's *Heavy Rain* pitch fell on deaf ears at Microsoft



"The time for convincing publishers and developers to support Wii U has long passed… **I'm going to focus on other [consoles]** that better support what we're trying to do."

Bethesda's **Pete Hines** laments Nintendo's home hardware strategy



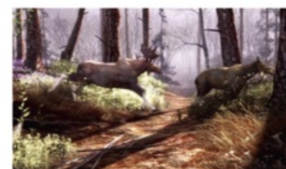
AP/Press Association Images

"Scandal! Caught playing iPhone game at 3+ hour Senate hearing – worst of all I lost!"

US senator **John McCain** just can't catch a break as he faces his third high-profile loss in a row

ARCADE WATCH

Keeping an eye on the coin-op gaming scene



Game Big Buck HD
Manufacturer Raw Thrills/Play Mechanix

Realistic hunting games might not have quite the same draw in the UK as they do in the sports bars of the US, but if you can look past the flimsily clad 'trail guides' and extinction-level animal slaughter, there's more technology and artistry on display than was ever expected – or even necessary. The sixth title in the testosterone-saturated series is a beautiful-looking game, with subtly lit environments providing a suitably grand backdrop for the animals trying to escape your sights.

There's thoroughly modern Facebook and Twitter integration, personalised profiles that allow for microtransaction purchases of clothing and other customisables, and competitive, co-operative and local play. The attention to detail extends beyond the virtual, with cabinets sporting metal-and-wood-grain-effect guns rather than the bright orange controllers of previous machines, and a deluxe cabinet with an 80in monitor.

Big Buck HD is so successful that there's an annual two-day world championship event hosted in Manhattan with a $50,000 prize purse and an inexplicably separate Ladies Tournament. While most arcade owners would rather you spend time executing humans, *Big Buck HD* is proof there's still cash to be made in the western arcade.



My favourite game Doug McDiarmid

The multi-instrumentalist and founding member of WHY? on SOCOM all-nighters and conquering Mario's early outings

WHY? sounds quite unlike any other band, meshing folk, indie rock and alternative hip-hop. Formed in 2004 by solo artist Yoni Wolf (who had used the moniker for his own work since 1997), WHY? has released four albums to date, its most recent being Mumps, Etc on City Slang. We talk with founding member **Doug McDiarmid** – who also records solo under the name JD Wenceslas – about vintage games and how videogame music helped him to become a better composer.

Congratulations on defeating Dr Wiley on the last tour. We enjoyed the victory dance posted on Facebook.
Oh, thank you! I edited that on a whim after the tour was over, while I was back at my parents' house. After a couple of days I figured I should make myself feel slightly useful. The tune is the closing music from *Mega Man 9*, I believe. I added some drums, so it's not true to the original – my apologies to the composer!

Do you keep up with games today, or are you more of a retro gamer?
We are all retro players. It's funny, because on our most recent tour we had a PS3 and basically the only thing we did with it was download old games and play those! We're stubborn old fogies who've not been able to keep up with the tide of technology. For whatever reason, *Mega Man* became the game of choice on that tour. And we realised that Brent, our manager, bore a resemblance to Mega Man, so we were trying to get an outfit together for him! I don't know why I gravitate to the early ones. A few years ago, my friend and I went through a phase of playing the *SOCOM: US Navy SEALs* games on PS2 with the headset online. That was a dark period for us. We'd plug in and, before we knew it, the sun would be coming up. We moved on quickly and went back to the older stuff.

ACCLAIMED INNOVATORS
WHY?'s latest record, Mumps, Etc, has met with critical acclaim and, together with a punishing touring schedule, seen interest in the band spiral. Its membership has expanded too, with the band recently welcoming a new member to the fold. Characterised by frontman Yoni Wolf's humorously personal lyrics as well as its willingness to swing wildly from hip-hop to indie, the band recently finished a stint of UK and European dates and is gearing up for another US tour. Mumps, Etc is out now on City Slang.



You tour a lot – does that lead to plenty of gaming time together?
We had a NES during the tour we did towards the end of 2012, and there was quite a bit of *Tetris* going on. It's something we go in and out of but, once the seal is broken, it just becomes a lost cause to try to get us to do anything else. When we recorded Mumps, Etc in Texas, we were deep into *Mario*, so we started with *1*, then went on to *2* and *3*, and then we got into *The Lost Levels*. And we finally defeated that… I don't want to say it was more momentous than finishing the record, but it came damn close!

> "We went through a SOCOM: US Navy SEALs phase with the headset. That was a dark period for us"

Do you think digital musicians have a natural affiliation with gaming?
Yeah, I think so. Being the age that we all are, having grown up with videogames, the musical side of that becomes imprinted on your musical consciousness. I always fantasised about composing for videogames, and game music played a pivotal part in my musical development. I never got too much into the Game Boy music thing, but our friend Passage [Dave Bryant] got in to that. I think they're interconnected in a lot of ways.

Are there any videogame soundtracks that really stood out for you?
I played a lot of *Metroid*, and I taught myself all those tunes on the piano. Hirokazu Tanaka's music really stayed with me – it's thoughtful, intricate and well composed. I ended up transcribing the music from *Zelda II*, as well. I was actually approached by a guy who was putting together a compilation of interpretations of a bunch of old games, and I recorded a piano medley of *Marble Madness* music. That game has really weird music, but I felt it went really well with the piano. That was fun.

Did you ever pursue your dream of writing music for videogames?
I never pursued it, it was always in the back of my head. Brent has been talking about hooking me up with some people, but I don't know if it even works the same way any more. Is there still room for bleeps and bloops? I'm attracted to the old-sounding engines.

What's your favourite game?
Astrosmash and *Snafu* on Intellivision are both up there. My first memory of videogaming is probably *Kaboom!* on the Atari 2600. I remember playing that in my friend's house, losing the feeling in my legs just sitting there. It came with a paddle that let you move the bucket back and forth to catch the bombs; it was so simple. I've played it recently and it holds the same appeal. I downloaded it on iPhone, but it's not quite the same! ■

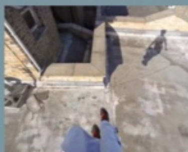
WHY?'s Doug McDiarmid (centre right) cites videogame music as a key influence on his own musical development, especially that composed by Hirokazu Tanaka for *Metroid* and other classic Nintendo titles



WEBSITE

Spelunky Explorers Club
http://bit.ly/1ezSTFG
Spelunky's randomised level structure has always been one of the 2D platformer's primary draws for players, yet it removed the ability to commiserate with others on a granular level. You might talk about how much you hate those pesky arrow traps, but you could never ask a friend if they had succumbed to the exact same one tucked away in Temple Level 4-2, where the arrow seemed to materialise out of thin air and knocked you back into the magma fountain. The introduction of the Spelunky Daily Challenge mode for PC remedies this situation, and The Spelunky Explorers Club blog hosts replays from a group of dedicated *Spelunky* fans, allowing them to compare notes and muse over the day's communal seed. Caring means sharing… the circumstances of your demise.



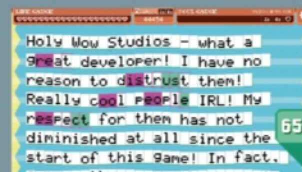


VIDEO

Ampisound
http://bit.ly/13gXVSP
Unsurprisingly, parkour and freerunning production group Ampisound has a soft spot for *Mirror's Edge*. So much so that it has produced a video in homage to DICE's 2008 game. Dressed in faithful garb, members dash across the decidedly unfuturistic rooftops of Cambridge in a (sometimes literally) dizzying display of dexterity, while the game's soundtrack plays in the background. Building facades, long drops and wide gaps are shrugged off as the action unfolds in firstperson. Here's hoping that DICE's reboot is half as exciting.

WEB GAME

Icarus Proudbottom Teaches Typing
http://bit.ly/168db3p
The last time we saw Icarus Proudbottom he was being propelled through the sky by explosive diarrhoea in anatidae-hell game *The Curse Of The Chocolate Fountain*. So it's certainly a surprise to see the unrelentingly cheerful character fronting what at first appears to be an edutainment game. It's nothing of the sort, really, but instead a biting satire of typing tutorials, Sierra adventures and 8bit brawlers wrapped around an amusingly meta plot that casts you as both protagonist and victim. To elaborate would be to rob the game of some of its best punchlines, but success depends on typing out the given passages accurately and quickly, any mistakes costing a heart from your health gauge. Irreverent, cutting and oddly exciting, *Teaches Typing* pushes all the right buttons.



THIS MONTH ON EDGE

Some of the other things catching our attention during the production of **E**259

GAMING KEYPAD

Razer Tartarus Keypad
www.razerzone.com
Gaming keypads are a curious proposition, made on the assumption that there are lots of people prepared to pay full keyboard price for less than half the functionality. Razer's Tartarus, however, has more to offer than just programmable keys, with a comfy wrist support, an eight-way digital stick under your left thumb, and a membrane keypad that's ideal for night owls wary of waking the rest of the house with the clacking of a mechanical keyboard. It supports Razer's Synapse 2.0 software, with its cloud storage of custom profiles, too. Our *StarCraft* micromanagement is still pitiful, of course, but at least now our lengthy practice sessions have become a touch more comfortable.



continue

Free *FIFA*
A bundled copy of *FIFA 14* is a late push for Microsoft

Eau de Cologne
New consoles breathe new life into game show

Self-publishing on Xbox
The plan that should have been announced two months earlier

Vita TV
A powerful microconsole with a massive game library at the right price

quit

Free *FIFA*
But a PS4 and a full-priced copy is cheaper than an Xbox One

Woe de Cologne
Is any venue big enough for Gamescom 2014?

Jack's back
Double Fine spends Kickstarter cash on Jack Black, then asks for more to finish *Broken Age*

SEO game titles
Next Car Game, '90s Arcade Racer – bring back real game names

TWEETS

Has anyone actually done any real studies on toilet gaming? Anecdotally it must account for a significant % of gameplay worldwide these days.
Jason Kapalka @jasonkapalka
Cloud architect, EMC vSpecialist, VMware vExpert

I'm so f**king sick of zombies. Can we please move on? No one is telling me anything new or different.
Ron Gilbert @grumpygamer
Monkey Island *co-creator*

A QA engineer walks into a bar. Runs into a bar. Crawls into a bar. Dances into a bar. Tiptoes into a bar. Rams into a bar. Jumps into a bar.
Anton Zhbankov @antonvirtual
PopCap co-founder

Who wouldn't want to wear something driven by hyper-relativistic electrons flying by your eyes?
John Carmack @ID_AA_Carmack
Oculus VR CTO and id Software co-founder

It was much easier to have grand plans when nobody knew who I was. The gaming world doesn't need more under delivering visionaries.
Markus Persson @notch
Mojang founder and creator of Minecraft



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DISPATCHES NOVEMBER

Within Dispatches this issue, Dialogue sees **Edge** readers debate whether soldiers are automatically heroes, if a gaming revolution will bring more immersion, and whether the purity of simple gaming is besmirched by cynical additions. In Perspective, **Steven Poole** notes that by lauding 'seminal' moments, we can devalue all that came before them; **Leigh Alexander** argues that taking things out of games allows us to offer more in the way of engaging experiences; and **Brian Howe** follows the trail of destruction bad boy Trent Trout left behind when he rage-quit the industry.



www.edge-online.com
Discuss gaming topics with fellow **Edge** readers



Issue 259

Dialogue



Send your views to edge@futurenet.com, using 'Dialogue' as the subject. Letter of the month wins a PS Vita

Soldier, soldier

In countless videogames, players assume the role of a soldier – usually American or British – and the general assumption is that when a player takes this role, she has been cast as the game's hero. Military games are typically regarded as falling into the broader category of games in which the player is one of the good guys; they do not belong to the smaller class of titles that give players the opportunity to be a villain. In short, 'soldier' is (typically) treated as a synonym for 'hero'.

For certain tabloids and charities, the notion that soldiers are heroes is axiomatic. But for the rest of us, that idea is more problematic. A hero is someone who does something morally praiseworthy at (potentially) great cost to themselves. Clearly, certain soldiers fall into this category – eg, many of those who gave or risked their lives to defeat the Nazis in WWII – but others do not. Those who perpetrated the atrocities against prisoners at Abu Ghraib prison are obvious cases of non-heroic soldiers, but there are other, less obvious, examples, too.

Many academic war theorists, such as Michael Walzer and Jeff McMahan, believe that the Iraq War failed to satisfy one or more of the conditions that must be reached in order for a war to be just. Moreover, some of these scholars believe that western soldiers who chose to fight in that war were wrong to participate. If they are right – and I am inclined to think that they are – it is somewhat troubling that so many recent games put players in the shoes of British and US soldiers fighting in modern Middle-East-based conflicts, even fictional ones. And some games, such as *Splinter Cell: Conviction*, go much further, requiring players to not only play as western soldiers, but to also participate in the most egregious of activities.

Why do these games – the jingoistic nature of which stands in sharp contrast to the more critical stance taken by the best war films – continue to be made, and why do players buy them? Why not have less morally dubious games like *Half-Life 2* – in which an educated protagonist resists a totalitarian oppressor – set the narrative template for shooting games? Perhaps players, especially younger ones, fail to engage in adequate moral reflection, and feel like a hero even when playing on the side of armies that have, in the real world, recently been complicit in injustice. Maybe, depressingly, players belong to that segment of the populace that, polls reveal, support their country irrespective of whether it behaves morally or not. Perhaps developers are just responding to market demand.

Alternatively, there is the possibility that, despite the way military games are marketed, players buy them for the same reason that they buy games like *Grand Theft Auto*: because they are bored with being the hero, and enjoy the subversive, vicarious thrill they get from pretending to engage in immoral conduct.

James William

If you're bored with tidy morality tales, you should pick up a copy of *Spec Ops: The Line*. Yager subverts the traditional military save-the-day fantasy by imagining a whole American unit gone savage. Regrettably, you won't be able to play it on your new Vita.

Genre creep

As hugely enjoyable as the last 14 years of gaming have been, the basic gameplay themes are essentially unchanged from the early forays into 3D worlds – a time characterised by developers reimagining how established genres could work in a 3D game space. Since then, games have predominantly been in a state of evolution rather than revolution.

Back in **E**128, you set out to define gaming genres and essentially proposed action, combat, exploration, puzzle, driving, rhythm, RPG, shooting, sports and strategy. From this list of ten genres, two observations strike me: firstly, no new genres have really emerged, albeit that within each genre there is a wide variety as new mechanisms and interactions to entertain players have evolved. Secondly, fundamental to each of these genres (to varying degrees) are game mechanics largely revolving around time/distance calculations, exploration, navigation, competition, combat, conquest and power. This is the language of gaming. Furthermore, these themes are stereotypically more likely to appeal to male audiences.

Games with dynamics revolving around themes of love, devotion, expression, compassion, romance, bonding, kinship, nurturing and culture are, by comparison, virtually non-existent – perhaps unsurprisingly, as these themes are much less mechanical in nature and therefore much harder to realise in a virtual world.

A common theme in all my favourite and most played games is that they have an underlying depth that constantly engages me as a player. Whilst the Wii was in many ways very successful in attracting female audiences, the breadth of games available that then appealed to feminine sensibilities with sufficient depth to encourage sustained play was lacking.

Perhaps with the next generation approaching, we can look forward to game makers finding new themes and ways to immerse players, as well as building on the well-established years of evolution.

For me, the success of the next generation is about creating new types of interactions for the player within virtual worlds. This is not about better-looking worlds but about finding new ways of

engaging players. Perhaps we can look forward to games creating a shared cultural experience on the scale that TV and films are able to engage the wider public today.
William Wood

Genres only get you so far. Is *Portal* a firstperson shooter or a puzzle game? We've seen a number of fascinating hybrids emerge in recent years. They defy easy categorisation, and that's surely an encouraging sign. The evolution continues.

In search of a journey

I was just curious if you could tell me where my game has gone? As a gamer for the last 20 years, I feel I have lost my game. Now I know what you are thinking, here comes the old man who's disgruntled about the fact that he can't play *Tanks* on the Atari like the good old days. How could this person who remembers the simplicity of the two-button gaming world begin to comprehend the leaps in gaming evolution?

However, the scary thing is that I am writing to you not as an elderly man who has never logged into Facebook; I'm 26 years old. I believe that I was in fact born in the golden age of gaming, and as I grew so did the advancements and technology of console gaming. I remember watching my mum play *Alex Kidd* on the Master System, I remember playing *Sonic* and being OCD about collecting those rings. I can remember each Christmas being defined by the joy of knowing that a new game I had read about for months would be mine.

As I've got older, maturity and responsibility have inevitably swept into my consciousness and I have found myself letting go of my 18-hour gaming sessions with my mates. Admittedly, every now and then a videogame comes along that catches your eye, and you feel the need to pop into your local shop – because we still can, thank god – and treat yourself.

However, there is no longer that excitement as I open the case and put it into my Xbox or PlayStation. Let me explain why: loading times are insane, made more so by the need to install it on my console – which will take 20 minutes or so – and I realise that my one-hour casual gaming window is slipping through my fingers. Next I am told the game is checking for any updates. Updates? I just purchased the game. Then, once you finally navigate your way through this hurdle of oppression, you get to play your game.

Only, every five seconds the game tells me that I have won a trophy because Lara can shoot a bow. Excellent… what a joy. I am also conveniently told that my singleplayer game has a multiplayer option or live feeds to Facebook, where I can instantly communicate the progress of my game with my friends and be notified of theirs. So essentially I can be told how much better my friends are while I play my game, and be slightly comforted by fake, condescending trophies as I play.

Now I know that this is the future and that games wouldn't sell if they lacked these features, and that stats and online features create a 'community' of gaming.

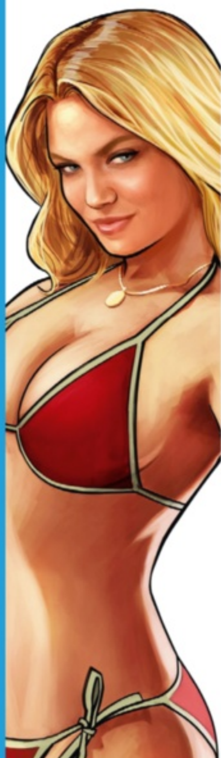
"Where is the game that was lovingly crafted to take me on a journey, simple and unintrusive?"

I don't dispute this – in fact, I encourage it and marvel at what these games achieve. However, in the sea of endless rushed sequels, MMOGs and *COD*s, where is my game? Where is the game that was lovingly crafted for years to take me on a journey, that was simple and without intrusion?

You may point me to the emergence of microconsoles, or Nintendo's need for simplicity, or tell me to buy an old console and relive my 'golden age'. But why should I have to sacrifice graphics, scale and quality to simply enjoy a game like I used to? I fear that my game is actually lost and the future has a hold on my dreams and laughs at its dated needs. There was nothing like those good old days.
Ryan Baker

We cherish our early gaming experiences, too, but it's easy to selectively remember the good bits. Besides, there's much to be positive about nowadays. We can play with friends on the other side of the world. There are untold numbers of great mobile games to download at any hour. Meanwhile, indies can self-publish and get paid – and right now many of them are working on the sort of games you seem to be yearning for. ■

James William ponders whether players really want morality tales or if they'd prefer *GTAV*'s blags and bikinis



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Microsoft's bid to harness the power of indies on Xbox One
Fingers crossed they manage to woo indies effectively. I'm really not a fan of how Sony appears to be claiming indies for themselves, it's for the good of the industry that all platforms are as accessible as possible and independent developers can reach a wider audience.
Peter Brozyna

The slow, sad death of 3D games
There is nothing sad about it… sacrificing image quality for something that adds little to the experience, except a headache after a while?
Jamie Hall

It should be blended into a game to add style and flavour – like a good cocktail. Not saturate it like cheap orange squash.
Chris Balmer

MOTION GAMING! You're next!
Jay Chaigneau

James Leach's least favourite game characters
I really hate Barney from *Half-Life 2*, when he keeps prompting you to use the grenades to clear out the snipers. Shut the hell up, Barney, I bloody know!
Ryan de Haaff



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STEVEN POOLE

Trigger Happy

The problem with 'seminal moments' is that, by their nature, they devalue all that has happened before them

You can imagine how thrilled I was at the prospect of getting my hands on what everyone on the Internet was assuring me was videogames' 'Citizen Kane moment'. Although I ridiculed that cliché in these pages several years ago, I now understand – having done slightly more scholarly research – that the phrase 'Citizen Kane moment' is in fact wonderfully apt. Because before Citizen Kane was released in 1941, it is now clear to me, literally no good films had ever been made.

Movies such as Sergei Eisenstein's Battleship Potemkin (1925), Fritz Lang's Metropolis (1927), Alfred Hitchcock's The 39 Steps (1935), Charlie Chaplin's Modern Times (1936), or Jean Renoir's La Règle Du Jeu (1939) were basically clunky trash with low-res textures, the equivalent of 1990s-era 'interactive storytelling' on CD-ROM. Citizen Kane, bouncing heftily on to the scene like an enormous and perfect water balloon, caused all observers to breathe a sigh of relief – at last, here was a film director who knew what the hell he was doing. Citizen Kane was the equivalent of... well, apparently, of *The Last Of Us*.

Imagine my surprise, then, when *The Last Of Us* turned out to be – well, very much like other videogames. Here is a guy with a beard, sitting on a sofa. His daughter gives him a nice watch for his birthday. He is grumpy and not very grateful. Then the zombie apocalypse breaks out. I cause some avatars to rotate and move forwards a bit, and I find myself being encouraged to press certain buttons in response to symbols flashed on the screen, so that the predestined narrative can play out as intended. Yes, there are QTEs –apparently, no amount of merciless ridicule can dilute their authoritarian popularity among videogame designers who fancy themselves cinematic auteurs. Like I said, it's a videogame.

Anyway, eventually my daughter dies, because the game wouldn't let me even try to run away from the guy who shot us, and we fast-forward 20 years. Now my beard and hair are a bit grey. After some tutorials on how to use the totally unexplained aural superpower I have somehow acquired – I can 'see' zombies and humans through walls by listening carefully – I find myself in some prettily decrepit venues, randomly murdering a lot of men. If I'd paid more attention to the dialogue I might know exactly why I am murdering all these men; in any case, murdering them I am. Like I said, it's a videogame.

> Imagine my surprise, then, when The Last Of Us turned out to be very much like other games

I'm not saying it's not fun to be introduced to all these new ways of murdering men. I can murder them with bullets, of course, but they don't hand out bullets like candy around here. I can also murder them by sneaking up behind them and pressing a button in response to an onscreen symbolic prompt, and then pressing another one to strangle them until they are dead. I can even bash them with planks or stab them with shivs. If I get into a one-on-one fistfight, I can just keep mashing the action button until the bearded fellow – with whom I don't for a moment identify – smashes my enemy's skull open on the handy corner of an iron box. At one point my partner minces and dances right past a guard, no more than a foot from his nose. He doesn't notice her at all. Like I said, it's a videogame.

I try to open a door. 'NEED KEY' appears on the screen in red text. I guess I'll have to look for a key, not exactly a revolutionary mission in interactive entertainment. I go happily in search of the mandated item. Oh, look, here's a broken-down truck full of crates. I wonder what's in the crates? Could be food, could be weapons. No doubt something useful. I try to look inside the crates. I can't. Like I said, it's a videogame.

At length, *The Last Of Us* does furnish some wonderfully tense setpieces of stealth and hurried weapon-building improvisation, and it has a rare heft and thunk – one of the most convincing illusions yet of heavy (and not ridiculously acrobatic) flesh moving around through hard, solid environments. Mechanically, though, it is hardly without obvious inspiration, playing somewhat like a mash-up of *Resident Evil*, *Metal Gear Solid* and *Arkham City*. Like I said, it's a videogame.

The Last Of Us does represent the consolidation of some kind of advance, at least, in that now an 'adult' or 'mature' videogame is no longer one that features scantily clad women whose obsessively coded breast physics take up 90 per cent of available clock cycles. Instead, people praising *The Last Of Us* for its 'adult' or 'mature' qualities seem to take those terms to imply something relentlessly humourless and grim, a sub-Cormac McCarthy trudge through the bleak post-apocalypse.

Personally, I found all the blades of grass far more affecting – as a beautifully silent symbol of life's indomitability – than the much-bruited subtlety of the relationship between Bearded Grump and his daughter-substitute. Maybe, indeed, the aspiration to seamlessly downbeat bleakness represents only a slightly later stage of adolescence than bug-eyed breast fixation. Still, progress is progress. And, like I said, it's a videogame.

Steven Poole is the author of Trigger Happy: The Inner Life Of Videogames. Visit him online at www.stevenpoole.net



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LEIGH ALEXANDER

Level Head

When it comes to telling stories and getting emotional responses from games, sometimes less is more

When we consider the advancement of games and the maturation of their storytelling, we always assume that more tech, more tools and more space will be what lets us refine the experience into something more mature, complex and sophisticated. Something more affecting.

Whether or not the videogame is a good medium in which to tell stories is one of the discipline's most common debates. There seems to be some acknowledgment that play can create feelings, and that those feelings can be meaningful. We see that games can provide scores of fans with the opportunity to enter fantastical worlds and meet new characters.

Meanwhile, it's generally agreed that as a basic principle this needs to happen through game design, and not in conflict with or at the expense of game design. Not all games need stories, and trying to imitate the conventions of cinema or pushing the abstract values of 'realism' or 'immersion' hasn't borne fruit.

Still, while the particulars continue to make excellent fodder for fan debate and developer forum discussions, let's agree that games *can* be a good medium for telling *some kinds* of stories. And that under some circumstances, they can tell those stories in ways other media can't, by letting players inhabit events, control worlds or even touch elements from some peculiar distance mediated by a designer.

Recently, though, we've seen some games that have things to teach us about how games can tell stories, while still using the familiar language of game design. And contrary to some widely held ideas, these games achieved their impact, their sense of maturity and grace, through restraint and constraint. In other words, maybe games benefit most from taking things out, rather than piling more things in.

The Fullbright Company's *Gone Home* is a lovely example of what can be achieved by reduction within constraint, rather than the conventional ideal of bigger-better-more. A small team, comprised mainly of 2K Marin veterans with experience in environmental design, gave itself an interesting task: to find out what happens when you don't have the resources, the combat, the triple-A values.

> Not all games need stories, and trying to imitate the conventions of cinema hasn't borne fruit

The result is an eloquent, spare story about teenage love in a complicated time, told simply through player exploration. On one hand, the four-person development team didn't have the scope or budget to render realistic faces with extensive dialogue and extensive game system. On the other, the constraints – partly necessary, partly intentional – let them focus on innovating with minimal resources. The delicate human story at the game's core was able to come to the fore because of the things they *didn't* add.

A reductive approach to design seems to lead to better storytelling. Many of the games with a place in the canon of videogames' most affecting experiences focus on a simple system, or a single mechanic: consider *Portal*, whose witty humour and character was delicately whittled out of a puzzle-solving game.

Ico and *Shadow Of The Colossus* are both beloved for having illuminated touching fantasy and provoked thought by not fully explicating their universes, and by keeping the player focused on a single task or ruleset. The less stimulation and information you provide to the player up front, the more opportunity you have to surprise them and subvert their expectations.

Papers, Please is a recent game that is alternately funny, political, thought-provoking and chilling – rooted in a concept that sounds so mundane you might assume it's boring. Yet through the simple concept of processing documents at border control, the game creates one of the most nuanced and complex narrative experiences I've played this year.

In *Papers, Please* the player experiences an incredible range of emotion and decision-making opportunities, because the systems are elaborate while the narrative is restrained. One might presume that a game about immigration policy would benefit from details about the world in which it's set, extensive context or pathos-heavy character stories, or explicit real-world references, but the reverse is actually true.

Because the game's engaging element involves making quick mechanical (and ethical) decisions with minimal information, the fact that so many elements go unexplained makes the experience stronger.

Many game designers know well that constraints make for more creative games – groups of designers doing one-button game design challenges a few years ago came out prepared to better understand the touchscreen age that followed, and weekend game jams often spawn incredible ideas from the combination of a single concept and limited time.

Perhaps, as a general approach, restraint and reduction better serve storytelling in games as well. It's certainly something to consider as the next generation of hardware promises more lifelike facial animations, real-world actors and more emphasis on the ever-nebulous concept of 'immersion'. Rather than think about what else we can pour *into* a game, let's think about how we might enhance the experience by taking things out.

Leigh Alexander is a widely published writer on the business, design and culture of videogames and social media



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BRIAN HOWE

You're Playing It Wrong

Gaming's misunderstood genius Trent Trout leaves a trail of destruction behind him as he quits the industry

The gaming community was shocked when the controversially outspoken yet undeniably talented indie designer **Trent Trout** publicly rage-quit the industry. Trout's long and self-destructive struggle to complete the puzzler/platformer *Fedora* was already the stuff of legend. But he joined the notorious ranks of creative hothouse flowers when he got so upset over an insult from some blogger that he went ballistic on Twitter (vacillating, as usual, between preening belligerence and the rawest vulnerability) and cancelled the hotly anticipated *Fedora 2*, which had been predicted to take Trout much less time to complete than the first one, thanks to advances in Microsoft Paint. But a guy's got to work, right?

This month, YPIW reports on the trail of carnage Trout has left in industry after industry since he swore off games with a final unwarranted insult to his long-suffering Twitter followers, thereafter only taunting them by posting the occasional mysterious Vine or random electro track.

First, Trout tried his hand at fashion, attempting to parlay his *Fedora* brand into an actual line of hats. Forming the company Polygon Headwear with partner Jared DeFragg, Trout prepared to debut his line at the Pan-American Chapeau Showcase, or PACS. But the business partners had a row before the convention, and DeFragg threatened a lawsuit if the hats were shown, which caused all the capillaries in Trout's eyes to burst. "I'm going to lose my shit," he snarled through his bloodied gaze. "I'm going to fucking kill that guy and it's going to get everybody in trouble" – although it's unclear why he thought it would get anyone in trouble but him.

Still, the show went on, and Trout's kiosk was pure bedlam, as the half-finished hats frequently unravelled or got stuck on people's heads. Sometimes they even crashed and had to be rebooted – which was odd, because they were just hats. No lawsuit was ever filed because, we suspect, Trout did go on to murder DeFragg, most likely eating the carcass raw. Polygon Headwear was summarily dissolved.

Sometimes they crashed and had to be rebooted – which was odd, because they were just hats

Why Trout took his next gig is difficult to fathom – perhaps he'd sunk the *Fedora* war chest into Polygon Headwear and had to take the first thing he could find. Whatever the explanation, we know that Trout then manned the customer complaint department at a shopping centre for exactly three-and-a-half minutes. He spent the first three minutes alternately berating a puzzled security guard, trumpeting his own accomplishments over the intercom, and demanding arbitrary public apologies from strangers. He spent the last 30 seconds calling an elderly customer – who mildly complained about the air conditioning – a "shrivelled-up old colostomy bag" that "sneezes smegma" and suggesting that it was nice and warm in Hell, where she should go by killing herself. He was escorted off the premises by security, while he harangued shoppers about his unjust persecution.

Fully in a state of career freefall, Trout bought a hotdog from a Japanese vendor and took a bite, which he then spat out onto the pavement with disgust. "Your hotdogs suck," he sneered, and lectured the silently weeping vendor about the deficiencies of the Japanese hotdog industry for half an hour. Humiliated, the vendor slunk away to disembowel himself, dropping his apron, which Trout then put on.

When word spread that an infamous videogame designer was working at a hotdog stand, a queue quickly formed. It stretched around the block as Trout slaved over his first order, placing each particle of offal in the hotdog casing by trembling hand. When the customer – who had by then grown a mosaic beard and Guinness World Record-worthy fingernails – finally dared to protest that he had been waiting five years for a hotdog, Trout condemned him as a "trivial pundit" who "sat in judgement, masturbating". Cancelling his next order and all to follow, exeunt Trout from the hotdog business.

Finally, feeling the need to get away from it all, Trout donned a skipper's cap that dashingly set off his mutton chops and booked on as the captain of a freighter carrying videogames to Singapore. But the trouble started almost right away. "People are telling me they're going to pirate my games because they don't like me, over," he radioed back to shore. "Gamers are the worst fucking people ever, over." This was unfair – people were going to pirate Trout's games not because they disliked him, but because they were actual pirates.

Trout's vessel was overtaken by speedboats in the Strait of Malacca and hit with an RPG, hurling the unsold hats that were ballasting the ship as far away as Sri Lanka. The pirates took Trout captive but, finding his incessant jabbering intolerable, released him after just a few minutes. Perhaps it was then that Trout began to realise that most gamers weren't so bad after all, priming his inevitable comeback after a span of sufficient pleading and coddling from his fans. In fact, let's make a bet – if he isn't back in gaming in six months, I'll go back and pay for all those copies of *Fedora* I pirated out of sheer malice and spite.

Brian Howe writes about books, games and more for a variety of publications, including Pitchfork and Kill Screen



THE GAMES IN OUR SIGHTS THIS MONTH



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Better, not bigger

When Capcom announced *Resident Evil 6* it made great hay of the fact that 600 people were working on the game, making it the company's biggest ever project. As we now know, it didn't help the final product, but it said much about the number of people required to make the modern big-budget game and the perception that quantity will birth quality. Industry pundits and armchair analysts alike have naturally assumed that even more will be required in the next generation, as the work involved in producing assets worthy of next-gen processing grunt means ever-bigger team sizes. Development costs will continue their inexorable rise, sales targets will increase in turn, the cost of failure will be worse than ever, and an even greater culture of risk aversion will mean innovation is stymied.

Swedish studio Ubisoft Massive is trying to show that needn't be the case. While things will surely change as release draws near and Ubisoft's network of global development studios – and publishing and marketing support – gets involved, at the moment *The Division* (p40) is being made by fewer than 300 people. It's all made possible by Snowdrop, the studio's new engine, which allows developers to make changes and test them out in-game within minutes. What is arguably the next generation's best-looking game is being made by one of its smallest teams – and it's an in-house engine, rather than thirdparty tech like Unreal Engine, that's making it happen.

Respawn Entertainment, with its lucrative EA publishing contract and Xbox One exclusivity deal, probably isn't too worried about how many people it will take to ship *Titanfall* (p46). But the studio, founded by *Modern Warfare* veterans and backed by EA's marketing might, is making something that is guaranteed to succeed. Yet scores of smaller developers will be watching *The Division* with interest. If Massive pulls it off, it might just change the shape of triple-A game development.

MOST WANTED

Killer Instinct Xbox One
Killer Instinct is no *Street Fighter*, but it has enough interesting mechanics to be worth exploring, and with an army of playtesters culled from the fighting game community, more thought's gone into the tournament potential of the third *Killer Instinct* than was ever given to the first two.

Rime PS4
In palette and style, *Rime* comes across as an exquisite blend of *Ico* and *The Legend Of Zelda: The Wind Waker*, which is enough to pique our interest. Tequila Works' first game, *Deadlight*, may have fallen short, but this melancholy-looking PS4 exclusive holds more promise.

Grand Theft Auto Online 360, PS3
With the thrill of playing *GTAV* early replaced with the realisation that we've finished it before anyone else has started, attention turns to the online component. The thought of 16 players causing havoc with *GTAV*'s vastly improved mechanics across San Andreas state is tantalising.

H Y
P E

TOM CLANCY'S THE DIVISION

Why E3 2013's biggest surprise poses a challenge to an entire industry

Publisher	Ubisoft
Developer	Ubisoft Massive
Format	PC, PS4, Xbox One
Origin	Sweden
Release	2014

Don't let the name deceive you: Ubisoft Massive isn't an enormous studio. The Swedish developer of E3 2013's biggest surprise numbers just 300 people. Naturally, as a modern Ubisoft project *The Division* will ultimately be made in co-development with the publisher's global network of studios. For the moment, though, fewer than 300 people (15 of the team are working on a secret project) are making one of the next generation's most exciting prospects. That is, by modern standards, a tiny team. Studio MD **David Polfeldt** knows that this is a bold ambition – and maybe a crazy one.

"I guess that's me putting my head in the guillotine a bit, because it's contradictory to what everyone else thinks," he tells us. "I want to put it forward as a theory, and maybe as a challenge to ourselves and other studios: are we sure we need 800 people? What if we say we can make it with 300? How much more efficient would we have to be? It's entirely possible. That's what I'm saying."

That drive for efficiency has not dulled the scale or ambition of this online RPG shooter, nor its production values. Its E3 video reveal was, like so many other trailers at this year's show, a tech demo of next-gen graphical effects – of volumetric and HDR lighting, of water, lit smoke, particle effects and reflections. There was a sense of pace and drama too: the demo was three minutes in before the first bullet was fired. "Almost everybody [else] started with big explosions," Polfeldt notes. "We thought before E3 that this was going to be necessary with this generation: people are going to expect sensitive drama, and build up. I think a big part of our success was that we expected people to be smart, to have the patience to wait for the first bullet. That made us stand out at E3 much more than we expected."

Stand out they did, to the extent that Hideo Kojima was at Ubisoft's booth within minutes of the E3 doors opening, asking to see *The Division*, telling the team afterwards it was "so good it makes me want to quit my job". That, Polfeldt believes, isn't a comment on the way *Metal Gear Solid V* is being made, but on how it's been presented. "I think what he means is we paid attention to the narrative: 'Ah, that is my strength. I'm good at that, good at allowing people time.' The way his game was announced was like nobody trusted that. 'Skip all those parts, go to action, action, action, and that's a good announcement.' For me that was a really important moment where I thought, yeah, we made the right choice."

That focus on the narrative was especially important because Massive wasn't just going up against the raft of other next-gen games





TOP **Massive studio MD David Polfeldt.** ABOVE **Carl Johan Lejdfors, associate lead tech programmer**



Massive made its name in the RTS genre, but learned much about shooters from working on *Far Cry 3*. Its experience of designing RTS maps will be key in designing for the Clancy games' tactical action




Snowdrop's lighting horsepower includes dynamic global illumination, which automatically changes the look of a scene when light sources move – the setting sun, an opened door, or a raised window blind

with guns at E3 2013, but also internally, against the other Tom Clancy games from which it has to differentiate itself. The solution came from the real world – first from Presidential Directive 51, the US Federal Emergency Management Agency's plan for the restoration of society after a disaster; then came Operation Dark Winter, a 2001 simulation of a bioterrorist attack on the US, and Massive had the differentiator it needed. "Clancy units traditionally stop the threat from happening," **Martin Hultberg**, head of communications, says. "We thought, well, why don't we take it a little bit further and enter a mid-crisis situation where something *did* happen and nobody managed to stop it? Then, as events unfold, someone has to take care of it. That would be The Division."

The game begins three weeks after the outbreak of a disease: it's a smart setup that positions the game somewhere between traditional Clancy fare and post-apocalyptic works like *The Last Of Us* or *Fallout*. New York is in chaos, but there's still a semblance of order and hope. It's up to the player to turn things around, hence the game's tagline: what will it take to save what remains?

With the change of focus comes a new challenge in open-world game design. In a post-apocalyptic setting, the damage has already been done; the world is fixed. Here, the virus is spreading, and with it disorder. *The Division*'s New York, then, will change as the game progresses, with unattended parts of the map slipping further into chaos. Hultberg refers to the first gameplay video, in which The Division dispatches an opposing force that has taken over a police station before freeing cops trapped in their own cells. "When you reach the police station, it might be in a different state than it is when I get there," Hultberg explains. "There might be an assault ongoing, and you help police fight off the attackers and get different information. That's one way of using dynamic events to tell slightly different story beats." It's a vague example, admittedly, but Massive is keeping things as close to its chest as possible.

In fact, game director **Ryan Barnard** prizes secrecy to such an extent that he's already worrying about upsetting Ubisoft's marketing teams. He is, however, quick to dismiss the suggestion that *The Division*'s police stations will play the role of *Assassin's Creed*'s viewpoints or *Far Cry 3*'s radio towers – central points that, when unlocked, afford a fuller view of the surrounding area, a recurring theme in Ubisoft's open worlds. "That's a proven formula for open-world games and it's very fun, but we are doing something different," he says. "We have a truly emergent layer – there will be an element of New York, as its own character, its own entity, breaking. For that to happen it has to be individual for you, individual for me, and it has to be real."

Your group will discover or become aware of events that require your attention at several spots in the world, and New York will change and shift based on the choices you make. Barnard speaks not of quests, but of threads, that different players will discover in different

There's still a semblance of order and hope. It's up to the player to turn things around

orders and with the city around them in different states of collapse.

They won't do so alone. This has been designed from the ground up as a multiplayer game, and it says much that Barnard's career has been spent mostly in the MMOG space, with stints on *EverQuest*, *Dark Age Of Camelot* and *Warhammer Online*. It's telling, too, that prior to its unveiling *The Division*'s internal codename was 'Rogue', after the *World Of Warcraft* class. The MMOG influence has been dialled back as development has progressed, but its legacy remains in crafting, trading, skills – switchable on the fly from a menu in your agent's wristwatch, the only real piece of Clancy tech to be shown off so far – and its offering of both PvE and PvP. Barnard says that the latter might just be Massive's "silver bullet"; the former will use a matchmaking system powered by the studio's obsessive focus on metrics.

"We're tracking tonnes of stuff for the player," Barnard says. "Are you someone who likes to PvP? Are you someone who doesn't


Martin Hultberg, head of communications



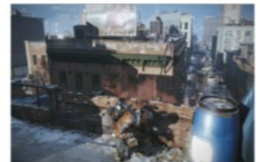
Companion ship

Ubisoft has spent the past few years experimenting with companion apps for its console games, but in the next generation its mobile offerings will be true parts of the games themselves. *The Division* is no exception, with a fifth player able to join a group, controlling a drone currently named Chloe (after the CTU liaison in the TV show 24). Players on iOS or Android tablets (and maybe smartphones too) will be able to heal and buff allies, mark and debuff enemies. It's primarily a support role, but Chloe will have some offensive capabilities, including a precision airstrike. Designed by Ubisoft Quebec, it's now being made in-house at Massive by a team acquired from studio Southend Interactive.



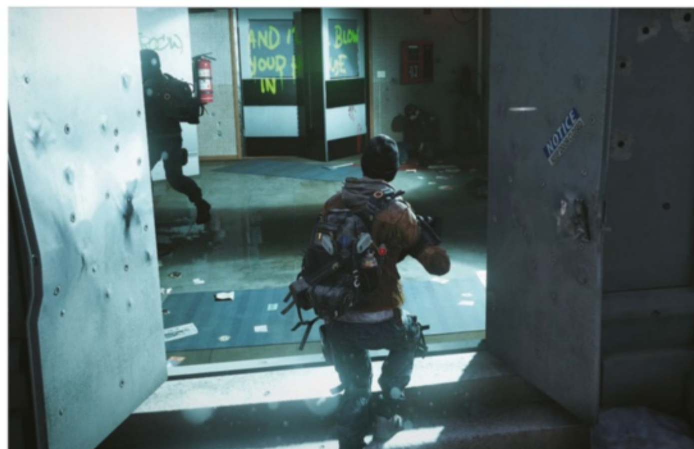






TOP LEFT **The team chose New York because it's so recognisable. Taxi cabs and iconic brownstone buildings provide a strong sense of place even when there's no major landmark in view.**
TOP RIGHT **All UI elements, including the world map overlay, are made with vectors, not textures, drawing precisely what is required and nothing more.**
ABOVE **The companion app drone comes into its own in the demo, marking targets that are then highlighted in red so that they can picked out from behind cover.**
LEFT **Three weeks after a virus outbreak, society has collapsed, but New York is in a state of disorder rather than chaos. Life, after a fashion, still goes on**





FAR LEFT **Hultberg is cagey about the types of enemies in the game but it appears there will be various factions – from those who have been preparing for the disaster to aimless, wanton criminals**
LEFT **Massive's attention to detail means that before it models an in-game weapon, it has to handle the real-world equivalent. Expect a mix of modern firearms and near-future Clancy tech**



PvP at all? Do you craft, do you do group activities? That will all be known, so when you go to join a group it'll not only fit you by who's available around your level but also by preferences. We're putting players together that have similar interests."

Metrics are used in the design process too, finessing cover placements and lines of sight, plus weapon balance and feel. That requires iteration, which takes time. New features have to be designed, coded, added to the next build and then tested. "Even if it takes me three hours to code it up, we're looking at a week or so of latency just from ID to first testable prototype," says associate lead tech programmer **Carl Johan Lejdfors**. "And by that time I've forgotten what I did, and my boss has forgotten what he asked for."

Not any more. Thanks to Snowdrop, Massive's new engine, *The Division* has been up and running since a few days into production. When we're shown the engine in action, a single click brings up a loading screen and a cascade of command line windows. Within seconds we're in the game, picking up a 360 controller and moving the agent from the E3 demo around New York, ready to test the feature that's just been added. Now that three-hour project can be implemented in the morning, tested in a multiplayer session with colleagues over lunch, and finessed in the afternoon.

The entire engine is node-based, meaning that the work done by all departments looks the same – a tangled spaghetti of connecting blocks of data that can, in theory at least, be read by anyone on the project. The coding has already been done, so where once a jump mechanic would require a coder, designer, artist and animator, now it's the work of a single content creator, who need only ask for access to the relevant nodes. Having a live engine reduces time; the nodes reduce the number of people required. Suddenly Polfeldt's goal of making a next-gen game with 300 people seems a little less fanciful.

The Snowdrop engine isn't just designed to increase efficiency, of course, and a closer look at the engine doing its work in realtime is perhaps the most engaging showcase for new console graphics hardware that we've seen so far. The undisputed highlight for us is a demonstration of *The Division*'s destructibility, which sees an agent dropped into a car park full of obstructions made of different materials, ready to be shot. Tiny splinters erupt from a wooden door; a slatted fence breaks up in chunks. Half a clip is unleashed on a sheet of corrugated metal, and when we examine its other side, we see a dent from every single bullet. Next to go is a wall of tiles, the gradual breakdown of which will thrill anyone who's ever taken a hammer and chisel to a bathroom wall.

The undisputed highlight, however, is the destruction of a police car. Siren lights pop and shatter one by one. Every bullet leaves a hole. Shoot out a tyre and there's a visible puff of air, the car's balance shifting appropriately. After a decade of shooting static objects until they catch fire and blow up, it's this – perhaps more than the engine and certainly more than the E3 competition's explosions and particle showers – that is most obviously next-generation content.

> ***It seems that the key to next-gen success lies in treating the player with respect***

Massive has spent its time under Ubisoft playing the support role, working first on *Assassin's Creed: Revelations*, then on *Far Cry 3*'s multiplayer component. Now it is the lead studio, and not just on this project. It is showing the entire industry that next-gen development doesn't need to be more expensive, that more can be done with less if you have the right tools for the job. "The fact that *The Division* got noticed is a healthy sign, and I think the message is not hard for other developers to understand," Polfeldt says.

"*You* can do that. You can slow it down, trust the gamer to be smart, build it up and work with emotions." Engines like Snowdrop may solve some of the industry's problems with scale, but in a broader sense it seems that the key to next-gen success lies in treating the player with respect. And, as we stand on the brink of a new generation, that's an encouraging sign indeed. ■

Q&A
Ryan Barnard
Game director



Is the whole world open from the start?
Yes, and I think that's important in an open-world game. But it's also an RPG, so there's a level progression. If you go somewhere right at the start of the game, you'll most likely die horribly. There will be a progression that you want to follow in some way. I think it's far more interesting, especially for a group-focused multiplayer game, to have relatively fixed enemy strength. If everything scales with you, it's all somewhat the same.

The game is class-based but you can switch your character's skills on the fly. How does that work?
The word we use internally is 'playstyles' – we don't really talk about classes. Really what it comes down to is a role. All we want is for you to feel like you serve a purpose in the group. There are definite skill and talent directions that fit together but none of them are locked in trees. You will be limited by how many you can actually purchase, and how many you can have loaded at any one time, but you can swap them out at any time [out of combat]. Having that trinity of someone who's doing a lot of damage, someone who can take a lot of damage and someone who can support the group is a very good trinity for RPGs in general, and we want to keep that going. But by not forcing you to pick a class at the start, you get to figure out how you like to play and you don't have to re-roll.

You're keeping a lot of things secret. Why?
I think it's better to give people a premise of the game and then have them discover what it's actually about when they play. I think that'll help create community; I think community has gone in online games, it's dead. All I have to do is use Google or YouTube – there's no interaction from the players. I personally will want to say as little as possible before the game comes out so people can just play and have a good time and discover it.

What's the most rewarding aspect of working on a next-gen game like this?
When you start to picture games in your head, you always end up having to make sacrifices when it comes to the end of the project. You have to settle at some point. With what we can do for this coming generation, it just means you have to do less of that. You don't have to compromise as much on what you do in your head versus what you can actually build.



LEFT **For Hultberg, it's time, not place, that's central to *The Division*'s story. "Our world is still very much alive. There are people, things happening, lights on in the city. I wouldn't say the city was dying, but it's very sick"**



RIGHT **While the full game will feature a Clancy-appropriate suite of near-future tech, the wristwatch is all we've seen so far. It holds the game's menu screens, including skills, as well as the map overlay.**
BELOW **One of The Division's gadgets lets agents scan NPCs' bodies, helping to alert them to potential infection in survivors as well as to the cause of death in those that didn't make it**





Design showcase

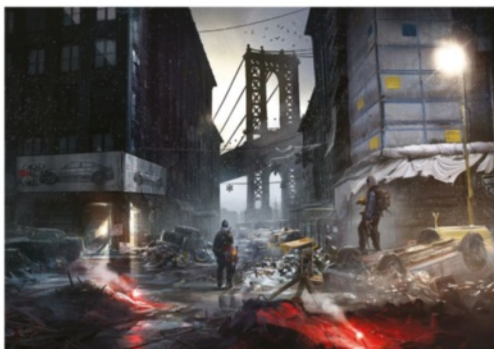
A look at the art, world and character design made possible by Snowdrop, the next-gen game engine that powers *The Division*.



RIGHT **Character creation will involve some backstory choices, but Hultberg is clear about the real star of the show. "It's not the story of you or your friends. It's the story of what's happening in New York and to the world"**
RIGHT **Financial systems are among the first things to collapse after the outbreak. The glass skyscrapers of Wall Street are utterly changed.**
BELOW **The setting provides ample scope for graphical trickery that will give life to this makeshift hospital by simulating flapping tarpaulin**



ABOVE **Massive's cinematics team don't just make cutscenes. They have a role in the game itself, helping frame shots when players arrive in new areas, for instance, an important role in a game with a free camera.**
RIGHT **A real-world setting poses a question: how faithful are you going to be to geography? "Like in all games, you have to sacrifice some things, but we are trying to push as close as we can," Hultberg says**





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TITANFALL

The creators of Call Of Duty reinvent postmodern warfare

Publisher	EA
Developer	Respawn Entertainment
Format	360, PC, Xbox One
Origin	US
Release	Q1 2014

Word spread fast. *Titanfall* was demoed at August's Gamescom show and, by day two, players were queuing for up to eight hours for a single 15-minute game, because once you play it you want to tell people about it. *Titanfall* is a mechanised and rocket-propelled anecdote generator, a meme with an Xbox One controller, a six-on-six multiplayer shootout where every moment is worth recounting, from the time you racked up a 20-man killing streak fighting alongside your own AI-controlled mecha to the moment an enemy Titan gunned down your armoured suit and you ejected straight onto the killer's hull. *Titanfall*'s systems seem purpose-built to make stories happen.



"There were three core mechanics we wanted," explains producer **Drew McCoy**. "Mobility, survivability and scale. Once the Titans started to come in you naturally started to get this longer lifespan, and even if you get destroyed you can eject and keep living. A lot can happen in a single life."

Living is easy in *Titanfall*. Certainly a shotgun to the chest will drop a Pilot in one hit, but Pilots are so mobile and the maps so large that there's always a way out of any compromising shootout. Every Pilot has an anti-Titan weapon, a double jump, gravity-defying footwear, and a cloaking system that's especially effective against a Titan's optics when making a break across open ground. Rack up enough kills or just wait long enough and you'll call in a customised Titan of your own, effectively wrapping your pilot in a tank costume and adding an extra life to your current spawn. Those are all the tools *Titanfall* needs to break free of the *Call Of Duty* spawn-die-spawn-die loop.

"It's not boom-you're-dead, boom-you're-dead," says McCoy. "Because you move so fast, it's not about who [aims quickest]; it's about who outmanoeuvres the other. I think it's a response to the fact that we're all getting older and our reaction times aren't what they used to be. I want to hop into a game and not feel like every 14-year-old is going to dominate me. I want a fighting chance and I don't want to feel I'm screwed if I didn't get in on the first week."

Such survivability should prohibit large bodycounts but *Titanfall*'s maps are target-rich environments, populated by dozens of AI soldiers run by Microsoft's dedicated servers. All of them put up a decent enough fight to be trouble, but they're thick and flimsy enough to be worth fewer points than a Pilot or Titan kill. "AI grunts keep that quick time-to-kill feedback loop," says McCoy. "When you can kill three guys in eight seconds, that's good – but when you're on the other



Respawn producer Drew McCoy, formerly of Infinity Ward



A commander on the Militia side, Sarah often appears as an NPC in *Titanfall*'s unique campaign multiplayer, briefing Militia troops on the mission before players drop onto the battlefield



side of that, it's not. If you run into a group of AI [units] you can take them out, and you still have that gameplay loop of doing things, achieving things, killing people."

Respawn rejects the word 'bot' for its AI units, but like all bots, *Titanfall*'s grunts are terrible in concept – a legion of semi-coordinated goons – except here, they work so well that *Titanfall* wouldn't be *Titanfall* without them. "They're not bots," says McCoy. "They're not meant as a human replacement. They're a different class of people. Pilots are these super-awesome soldiers that have the gear to do double jumps, the weapons to take down Titans, but the AI are the low-level guys that are always on the ground – they're not double-jumping and they're really weak, but the purpose they serve design-wise is multifaceted. They show new players where to go. And once they start fighting, they're usually fighting other AI because all the experienced players are fighting on walls and rooftops. New players start getting kills on AI, when usually in multiplayer games they're getting completely whacked."

Mobility, survivability and scale are Respawn's buzzwords but players leaving EA's booth at Gamescom were more inclined to mention how the game *feels*. *Titanfall* doesn't play like other modern shooters; when asked for influences McCoy mentions *Quake, Tribes, Doom* and *Street Fighter*. "*Tribes* for motion," he says, "*Doom* and *Street Fighter* for Titan combat. I loved rocket-jumping, learning routes in *Unreal Tournament* team maps, the grapple in *Tribes: Vengeance*; I loved figuring out what the physics was like and how I could use it to my advantage. I think a lot of games have narrowed things down to your reaction times – who can pull the trigger faster? – and we want to open it up a bit.

"*Doom* is actually where some of the Titan combat came from. That dance you did, strafing back-and-forth with rocket launchers; you felt like you could actually evade their fire. Titans can fire a slow [missile barrage] by holding the trigger, and that's actually a fighting game inspiration. Like in *Street Fighter*, if you throw a fireball you can force your opponent to jump over them and do another move to take them out."

This is *zoning* in an FPS. While Pilots zip around with their sticky boots and jetpacks, Titans play a slower, more tactical game of move and counter-move. "Maybe you're really good at moving around the level, timing your Vortex to block their fire then dashing at a Titan, reading your opponent's tells. It feels like a fighting game," says McCoy.

It feels different and new, the way *Modern Warfare* felt in 2007 and no major console shooter has felt since. Our story goes like this: we spawn and rush forward, moving ahead of the AI grunts and breaking off from our five teammates to climb the tower in the centre of the Angel City map. This is a mission torn from the campaign, a plot-driven deathmatch where the enemies are real players, and from that vantage point we can pick off grunts two or three at a time while firing on Pilots still too attached to the ground beneath their feet.

It's enough to call in our first Titan, deployed in front of the tower where we hand

Repawn's AI grunts work so well that Titanfall wouldn't be Titanfall without them

control over to the AI and set it to Guard mode, halting the Pilots trying to scale our high spot. When one finally makes it onto the roof with a shotgun it's time to bail, leaping straight into the waiting Titan and rampaging across the map, gunning down enemy Pilots right up to the point when they're forced to evacuate from the map on their last remaining spawn for a massive XP bonus. Ten minutes, one spawn. It's possible in *Titanfall*.

"It's [those stories] that matter," says McCoy, when asked about the buzz from the show. "Who cares what rendering features we have or dynamic audio generation? Who cares? Did you have fun? Did you know what you were doing? Did you learn something new? That's what matters. We're never going to be telling you, 'We have this many levels, this many guns and this is our player count'. Numbers aren't something we care about. We just want everyone to have fun. Our game designers went nuts, like, 'What do we want?' And the answer was: 'We want everything!'"



Pilots and Titans will be fully customisable using a system similar to the one Respawn's team pioneered in *Call Of Duty 4*. Cosmetic tweaks haven't been mentioned but Respawn's artwork includes several different Pilots



Special source

Titanfall is built on a modified version of Valve's Source engine, and producer Drew McCoy is clear about just how modified it is. "If you could get even one of our levels to load in the version of Source we branched from – the *Portal 2* version – it would have a single-digit [framerate] for sure," he says. "When we decided to use it, our engineers knew that we had years to reengineer it. It's a very single-threaded engine with nowhere near the performance we needed, but it allowed us to prototype quickly. People feel that Source is super optimised; but no, Valve is just really good at using its engine for the games it makes. They aren't highly detailed and they don't have loads of unique models and effects playing at once – but we have a lot more going on in any given frame so we had to redo a lot of the engine for that. We've done so many optimisations, but [using Source] really allowed our designers to start making fun stuff earlier."







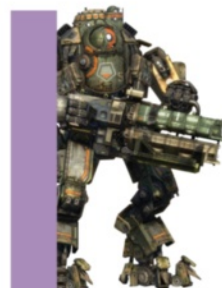




TOP **Titans are especially vulnerable when caught unawares. A lone Pilot can board an enemy Titan, open it up and take it down with a few blasts from a regular weapon.** ABOVE CENTRE **Every Pilot carries an anti-Titan weapon in their second slot, including tools like guided missiles and armour-piercing machine guns, but such weapons are ineffective against personnel.** ABOVE ***Titanfall*'s maps are pieces of extraordinary design, with routes and combat spaces designed for mobile Pilots and lumbering Titans to ensure absolute balance between the different classes**

TOP **Titans are overwhelming in a fight against ground forces, but in *Titanfall* ground forces are rarely on the ground. By staying mobile and avoiding open ground, a single Pilot can run rings around an enemy Titan.** ABOVE **The sci-fi world came after the initial designs were prototyped, as Respawn looked for a setting that would justify the blocks that took the place of Pilots double-jumping and wall-running in their early demos.** RIGHT **The grunts can't be relied upon to fight alone, but fighting alongside them can improve your odds of survival in a shootout**







Publisher EA
Developer BioWare
Format 360, PC, PS3, PS4, Xbox One
Origin Canada
Release Q3 2014



DRAGON AGE: INQUISITION

BioWare's RPG returns to its Origins

Crestwood is under attack – and the player is to blame. Cast as the Inquisitor, head of an order dedicated to uncovering the cause of a fresh batch of trouble in Ferelden, we have established a keep in the beautiful rolling countryside around the small, rural village. This has attracted the attention of the puritanical Red Templars, one of two warring factions (the other being the Mages) whose differences provide the polarised moral and philosophical positions from which, we imagine, many of *Inquisition*'s major decisions will emerge.

For now, though, starker, more immediate choices have been forced upon us. The Red Templars have only attacked Crestwood to divert the Inquisition's forces from the keep, and have already cut down a scout team sent out to aid the hamlet. So, do you send more men to protect Crestwood? Recall everyone to the keep, leaving the wounded behind? Or do you leave some men to defend your wounded soldiers? "What we're asking you," producer **Cameron Lee** explains, "is what kind of leader do you want to be?"

Meanwhile, BioWare has been asking itself what kind of game it wants to make. *Inquisition* might be a sequel, but not to the game you'd expect. The budget-constricted, single-character-focused misfire that was *Dragon Age 2* has been forgotten, it seems, and BioWare is instead crafting a game that – right down to that subtitle – serves more as a sequel to *Dragon Age: Origins* than its immediate predecessor.

You can choose between character races once again (as well the standard Human, Elf, Dwarf triumvirate, *Dragon Age*'s horned Qunari are playable for the first time) and the top-down, PC-friendly tactical view has been restored to combat, allowing you to freeze time, queue instructions and plan complex manoeuvres from a bird's-eye view of the battlefield. Whatever you made of *Dragon Age 2*'s more focused story, it restricted choices in a series built around them.

In this first look at BioWare's next-gen RPG, we choose to leave both the wounded soldiers and the village behind, much to the consternation of our party members. It's a pragmatic decision, motivated by a desire to defend the keep and maintain control of the region, but as we crest a hillside and see Templars razing Crestwood to the ground, you could hardly call it the right one.

We can't stop to aid Crestwood because we're in a hurry: *Inquisition*'s maps are sprawling and expansive, thanks to DICE's Frostbite engine, and the "medium-sized" area we're currently viewing takes at least 15 minutes to cross on foot. Along the way we

> ***Dragon Age: Inquisition might be a sequel, but not to the game you'd expect***

see another advantage of using Frostbite: destructibility. We spy some of the longboats the Templars have been using to cut short their journey to the keep and, with the aid of a few firebombs, torch the lot.

Fantasy worlds can often feel like static, sterile (if gaudily themed) arenas for numbers-based contact, so this physicality is intriguing, and should dovetail effectively with the tactical view, which gives players time to properly scrutinise the battlefield. At one point a battle is swiftly ended when the player orders a party member to send a jolt of icy magic into the foundations of the rickety structure some archers are perched on.

It's a return to the potential of the first game, then, with the tech to realise it, a strong theme of leadership, and a commitment to showing the consequences of choices. With the battle done, and the Inquisition keep saved, we head wearily back to the village of Crestwood, only to find nothing but corpses and scorched earth when we get there. ■



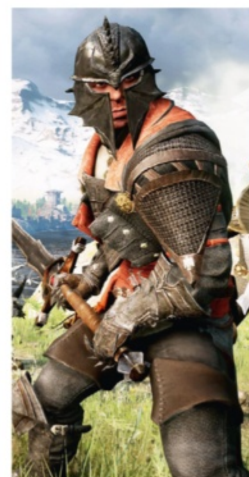
Keep close

BioWare appears to be structuring its RPG in a similar way to an open-world game. Almost every region in Ferelden has a keep, controlled by Mages or Templars – giving you a clear target for your early explorations. Capture a castle, however, and you'll have to choose whether it specialises in diplomacy or commerce, or if it functions as a simple military stronghold – presumably as part of a wider metagame akin to *Mass Effect 3*'s war readiness rating. You'll also be able to change elements of the surrounding landscape – rebuilding broken monuments, opening up dormant routes – as long as you have the resources. These options often unlock sidequests, but you need to allocate Inquisition members to the project first.





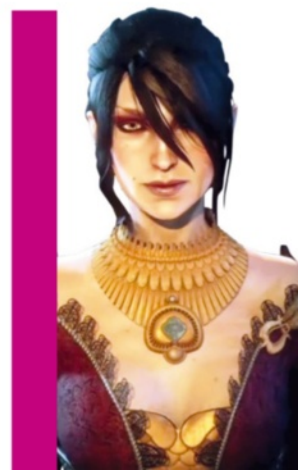




TOP LEFT **A new conversation wheel makes literal the outcomes of your dialogue choices, which should make very clear the nature of the dilemmas being presented.**
TOP **You have three party members other than yourself, and can rely on *Dragon Age 2*-style realtime combat if you want to. Encounters seem designed for tactical view, however.**
ABOVE **The Inquisitor appears rather blank, as slates go. It's unclear whether the negative connotations of the word 'inquisition' in the real world will apply to your order**

ABOVE **There'll be plenty of dragons scattered around the game's maps, each designed to offer a unique style of combat encounter.**
RIGHT **You can pause combat and flit between characters, controlling whoever you need directly. While some party members will return, many will be fresh faces**






BANDAI NAMCO
Games


BAN
DAI





Publisher 2K
Developer Firaxis
Format 360, PC, PS3
Origin US
Release November 15





MECs are the main event in *Enemy Within*'s tactical game but Firaxis promises changes to the strategic game, too

XCOM: ENEMY WITHIN

A bigger, wider, tougher take on enemies unknown

Enemy Within's big question is just how much you're willing to monkey with your soldiers before they're no longer human. Certainly, your troops seem more human now – each responding to orders in their native language and wearing armour appropriate to their roles – but *XCOM*'s expansion is about taking your pawns and tearing them apart until they're as abominable as the alien threats they face. It's all for the good of humanity; ours, not theirs.

Enemy Within is a director's cut of sorts – the same story with new beats, the same systems with new mechanics, the same missions with new maps. "The *Civilization* expansion packs [are] one-third, one-third, one-third," says senior game designer **Ananda Gupta**. "It's one-third new stuff we dream up for this new title, one-third modifications of existing systems, and then one-third fan-service fixing. We're taking a similar approach [with *Enemy Within*]."

New stuff includes *XCOM*'s Cybernetics and Genetics labs, where *XCOM*'s soldiers are filled with alien goo and riddled with robotic components in the name of winning this new, more difficult war. Powerful cyborg MECs can be deployed with flamethrowers, grenade launchers and cover-shredding special attacks, and while they can't *take* cover, they can *be* cover when locked down. Fighting alongside them are genetically augmented comrades who can be modified with alien tech to add passive cloaking systems, psi-cancelling implants and other abilities.

The two new flavours of augmentation dramatically change the squad makeup, and their presence is vital with the aliens fielding 'Mechtoids' – machine-encased Sectoid soldiers. There are 47 new maps, new





Transforming your soldiers into MECs is a costly process that works only one way, and armies can sustain just a small number of them

The Mechtoid raises questions about whether an army with Mutons really needs more firepower



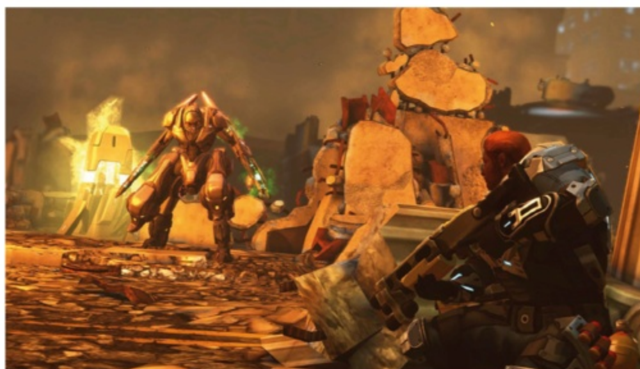


XCOM: Enemy Within senior game designer Ananda Gupta





LEFT **Genetic modifications can be applied to five different body parts, opening the door for extensive finetuning and role specialisation**



TOP **Genetic modifications can allow your soldiers to scale high vantage points without needing a ladder.** ABOVE **MELD canisters can't be directly targeted, but they will explode once their resource is depleted**

weapons for mech troopers, new projects from the Foundry and a new resource – MELD – powering development of those new units once found. MELD canisters are scattered around maps, depleting with every turn and adding another tactical knot to each battle: do you rush in and grab the MELD or inch your way forward, scavenging what little you can as you leapfrog from cover to cover?

"There were a number of things we wanted to fix about the original game," says Gupta about the existing systems Firaxis rebuilt and fixed, most notably the infamous bug that broke how *XCOM* calculated flanking advantages. "We needed to address that flanking bug but we could never patch it, so the engineers investigated it and found out there were three different flanking bugs and that's why no one fix was working. We were able to fix it but we had to do a fairly substantial dive into some of this code, so while they were digging around they made some improvements to how certain things work. I think there are a number of cases where, with sharp eyes, players will notice that things are a little smoother, a little better... in some of the micro-movements of units, the kick from weapons and so forth."

The remaining third was all fan service. Inventory management is made easier by a button that returns everyone's equipment to a shared pool, and multiplayer gets new maps and offline squad editing. It's a shopping list of things that only matter if you play *XCOM* regularly, but when you do they're a big deal. Players on console platforms may respond less well to such small upgrades, where Firaxis's "substantial dive" into the game's code prohibits *Enemy Within* being distributed as downloadable content, but *XCOM* veterans will notice a little extra punch to the weapons, a slightly faster response to orders, and other near-invisible upgrades that make *Enemy Within* less like an expansion and more like the game *Enemy Unknown* should have been.

Do you rush in and grab the MELD or inch forward, scavenging what you can?

That's not to say that *XCOM: Enemy Unknown* failed – "Nobody at the studio expected we would win 15 Game Of The Year awards, but everyone thought we were going to put together a game that would surprise people," Gupta says – but like *Civilization*'s expansions, once you play *Enemy Within*, the original game seems much smaller and more limited. It's not enough to deploy a shotgun-wielding sprinter to lead the assault any more; you have to consider his armour, how his genetic modifications meet the specific threats of the battle, and whether to send that fast soldier after MELD or after Sectoid heads. Cover-reducing attacks from mecha troopers mean soldiers have to stay mobile, fire and gas offer new ways to control space, and powerful MEC melee strikes knock soldiers off their feet and make precipices deadly.

Those additions to your tactical deck make it hard to go back to *Enemy Unknown*, but the $40 outlay on the Xbox and PS3 versions may make it hard to go forward for players already finished with Firaxis's first *XCOM* project. ■



Reloaded dice

One of the more curious sources of grief in *Enemy Unknown* was the game's retention of the random-number seed at the start of each turn. Try to cheat the system by saving before a risky shot and you'll still miss, even if you reload 50 times. "The sequence of die-rolls is fixed," says Gupta. "We added a Second Wave option [in *Enemy Unknown*]. That's one of those options you can turn on at the start of a game, in honour of Jake (Solomon, lead designer) who was adamant that this should not be allowed as base functionality, and if it's on, the game will reset the random-number seed every time you reload the game."



Publisher Microsoft
Developer Turn 10 Studios
Format Xbox One
Origin US
Release November 2013







Turn 10 faces unique challenges when it comes to applying its physics model to cars like McLaren's new P1 – a car that practically defies physics and, according to Greenawalt, "shouldn't even be drivable"

FORZA MOTORSPORT 5

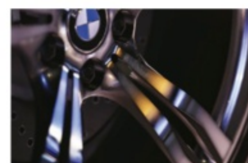
Next-gen physics for a next-gen racing game

Turn 10 Studio's creative director **Dan Greenawalt** will talk about the brutal, complicated maths that underlie *Forza*'s handling model for days, if that's what it takes to prove the necessity of next-generation hardware for making *Forza Motorsport 5* work. "The things we're doing in physics now are simply impossible on last-generation hardware," he says. "The amount of power to do the calculations we're doing was just not available, and we didn't have the knowhow as an industry to do some of the things we're now doing."

Greenawalt offers an example: "We did good suspension in *Forza 4*, but there was more to be done. We're adding open-wheel [cars] in *Forza 5*, like the 1976 Ferrari and McLaren from the movie Rush, so we wanted to reinvestigate what it takes to do a race suspension model, and that benefits all our cars. Now we have more accurate movement as we're doing a reverse-kinematic model. Basically we've measured all movement – the length of the swingarm, the length of the A-arm – we have all that modelled."

"Tyres," Greenawalt says, with a full stop. *Forza 4* simulated tyre flex using variables ported directly into the game from Pirelli's own test data, but Greenawalt wanted more.

"I was asking Pirelli, 'These tyre curves you have, this data... how are you isolating camber from wear from pressure and so on?'" he says. "Pirelli's take was, 'We don't and [you can't]'. So we found a new partner for *Forza 5*: Calspan. Calspan is not a name that anybody knows, unless you're an engineer. The testing that Pirelli was doing on their tyres is called Calspan testing; that's what all the tyre manufacturers use. [Calspan's] take was different to Pirelli. It said, 'We'll need palettes





ABOVE **Every car in *Forza Motorsport 5* is modelled down to the tiniest stitch on the upholstery. *Forza* has never beaten *Gran Turismo*'s car counts, but it tends to win on variety and detail**





Dan Greenawalt, Turn 10's creative director





LEFT **The R1 class will be given a run for its top speed by the new Formula 1 cars licensed from the movie Rush. It's a neat dodge that avoids the need for the dedicated F1 licence Codemasters currently owns**

LEFT ***Forza*'s traditional R1 class climax to the career is now an option, with every career offering a satisfying beginning, middle and end for every class of car**



ABOVE **Pagani's Huayra is one of the cars best viewed in Forza Vista mode. Its curious doors and articulated parts make for a more dramatic spectacle than a Honda Civic**

of tyres,' so we bought palettes of tyres and sent them to Calspan and [it] did two weeks of testing – morning, noon and night – isolating these variables. We now know things about Pirelli tyres that Pirelli doesn't know about Pirelli tyres. We know things about Toyo and Yokohama that are going to help write the textbooks in two or three years."

Greenawalt only mentions *Forza*'s most conspicuous competitor when he *doesn't* mention it – *Gran Turismo 6* uses Yokohama tyres and physics powered by a current-generation processor.

"I don't know about their physics engine," he says. "But this is a new physics model that wouldn't have been possible in the last generation, and not just on Xbox 360. We just didn't have the power to run all of these isolated variables. We made changes to the aerodynamics, we made changes to the mass block – there are a lot of changes that came in – but it's the tyres where we're not just on the cutting edge of racing simulation, we're on the cutting edge of tyre science."

But for all the millions invested in handling models and tyre flex, it's not maths that separates Microsoft's *Gran Turismo* from Sony's *Gran Turismo*; it's the push to change, to let players play their way and to exploit new ideas as much as new technology. Polyphony Digital's Gamescom panel showcased a game of escalating complexity worn as a badge of honour, while Turn 10's *Forza 5* demonstration was about explaining a game that's playable by anyone, any way.

The massive multidiscipline *Forza 4* career has been replaced with 42 90-minute mini-careers, each built around a specific class. The Sport Compact category opens up into a series of campaigns – Modern Hot Hatch, Early Sport Compact, Modern Sport Compact – and lets players take them on in any order, as long as they have the car for it.

You'll start in a mid-range sports car rather than a Ford Focus, but you can step up or down the classes at will so long as you have the cash for it. Every car is fully articulated and those million-polygon models can be explored in firstperson with an intro from Top Gear's presenters, detailing the differences between an STi and a GTi or framing it in the history of motorsport, movies or automotive design.

"No matter where you go in the game, you get money and XP and level up," Greenawalt

"We know things about tyres that will help write textbooks in two or three years"

says. "Whether you're a five-year-old or a 35-year-old race car mechanic, whether in splitscreen or Free Play, multiplayer, singleplayer… we value everyone's time equally. I don't ever want to try to fit someone into a cookie-cutter mould, to say, 'Oh, you're not into simulation – get out of here'. I believe that's poor design. Are there arcade games and sim games? No, there are just poor designers. I believe a good designer can come in and we can have excellent physics and we can have that depth, but if you don't get it, don't even worry about it."

But what about being on the cutting edge of physics? What about a once-impossible degree of variable handling? What about writing the textbook on tyres? What does it mean for the player in a racing game made unique by the chance to play how you like?

"It means a car comes to life," Greenawalt says. "It's just more alive. And that's what *Forza* is about. We want to bring physics that a race car driver can appreciate and put it in the hands of a five-year-old." ■



Server suggestion

Forza 5's Drivatar AI is powered by players and Microsoft's Azure cloud servers, crunching numbers behind the scenes to turn *Forza*'s record of your racing style into something replicable in other players' games. When Xbox One was intended as an always-online console, Turn 10 could count on players being connected and always streaming data. The changes to the console's policies mean that *Forza 5* will now grab Drivatars from Microsoft's servers when it can, and wait for a connection before uploading Drivatar data to the cloud.





Publisher Big Robot
Developer In-house
Format PC, Mac
Origin UK
Release TBC

SIR, YOU ARE BEING HUNTED

Big Robot's thoroughly British survival sim is taking shape

Big Robot's lead designer **James Carey** has quite the mission statement for his studio's firstperson survival game: "We want you to be absolutely scared to death, but laughing at the same time." After we spend some time with the alpha release – crouching in a crop field, near death and about to blow our Rusty Trombone to distract the robots that are stalking us – it's apparent that Big Robot is well on the way to striking that particularly tricky balance.

Set on a procedurally generated archipelago of five islands, *Sir, You Are Being Hunted* opens in the aftermath of an experiment gone awry. You learn from your manservant Walters, who acts as narrator and guide, that the focus of your research – a machine that can return you home – was scattered across the area in an explosion, and you must now track down the 25 parts. Finding them is made slightly easier thanks to the white smoke each hot metal fragment gives off, but there are other, more pressing concerns to deal with along the way.

You share the island with a collection of haughty robots, sporting top hats, hunting jackets and blunderbusses. You are their intended quarry. The mechanical aristocrats patrol these islands, their position betrayed by a distinctive digital chirrup as they march through the fields and woods that separate villages with quaint names like Nimby Knocking and Misty Swelling. If they find a piece of the machine before you, guards will be posted to await your arrival.

If you're spotted, or heard, the robots will give chase, firing on and searching your last known position. Thankfully, you have plenty of options to swing the balance of the one-sided hunt in your favour. Villages can be looted for supplies, weaponry and ammo, among other things. You'll need to eat regularly or face slow starvation, and bandages are essential for patching up a bleeding wound. But you're not the only person searching these structures.

"If the robots walk past any building that has some loot in it that they like, there's a chance of them stopping and posting guys to guard it," lead programmer **Tom Betts** says. "But they like some weird [things]. On the whole the stuff they guard is worthwhile, but you might clear out a well-guarded location only to discover that they were just protecting a stash of trombones."

You can engage robots in battle, but it's a risky option better employed when your opponent's numbers are low. Better to distract them by throwing a glass bottle, scaring flocks of birds from their perches, or lighting a fire at one of the many woodpiles (where it's also possible to cook game). You can also use bear traps to temporarily disable patrolling robots, finishing them off with an axe.

At the moment there are only three other types of enemies, although more will follow in the run up to full release (see 'Drone strike'). The portly Squire will leave you alone unless it spots you looting, and it's possible to use its desire for a quiet life against other, more aggressive robots. Later on, some parties have dogs with them, while a searchlight-sporting balloon roams the night skies.

Access to the four outlying islands comes from boats that also provide the only other save points besides the stone circle to which you must take your salvaged machinery. Currently, there's a choice of three biomes from which to generate your world: Rural, Fens and Mountain. These will be joined by Castle and Industrial biomes later on.

In its current state, *Sir, You Are Being Hunted*'s surreal fusing of Westworld with Last Of The Summer Wine is atmospheric, but its simplistic components offer little of its designer's intended replay appeal. The coming additions, in particular multiplayer, should infuse the game with the variety and depth it needs – but at the very least, as Carey points out, it will be "the world's first firstperson trombone game".

Lead designer James Carey (avec pipe) and lead coder Tom Betts





Drone strike

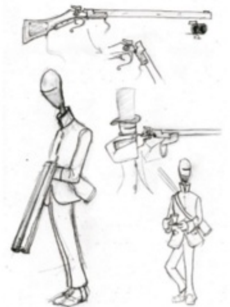
Big Robot wants to ramp up the threat as you collect more pieces, setting ever-more-deadly opponents on your trail. The current cast will be joined by cloaked poachers which lay traps, the mysterious Scarecrow and the terrifying-sounding Land Owner, which stalks the island on spindly legs like *Dishonored*'s Tall Boys and never gives up the chase once it spots you. The team also intends to parody fox hunters with Riders, which wear red jackets and sit on the back of horses with rockets for legs (they still make the familiar sound of two coconut halves being clacked together, though).







TOP **Some machine parts are very large, necessitating some clever, and speedy, shuffling of your inventory.** ABOVE **Big Robot's British Countryside Generator is capable of creating some incredibly beautiful vistas, and sometimes you'll stop just to take in the view**







TOP **As well as towns, there are also ruins, barns and other structures to find. They usually hide woodpiles, which can be used to cook food or distract enemies.** ABOVE **Patrolling balloons have a habit of lurching towards you, scouring the area with their searchlights. If they spot you a loud alarm will sound, drawing other robots to the area.** RIGHT **Patrolling robots are easier to spot at night thanks to the red beams they give off, but it makes them more ominous too**



CHILD OF LIGHT

Publisher Ubisoft **Developer** Ubisoft Montreal **Format** 360, PC, PS3, PS4, Wii U, Xbox One **Origin** Canada **Release** 2014



"Child, tuck yourself in bed. Let me tell a story of Lemuria, a kingdom past and a girl born for glory." These opening lines of trailer narration suit Ubisoft Montreal's JRPG-inspired 2D adventure *Child of Light* perfectly. The game's fantasy setup – a pure-hearted maiden named Aurora, an evil witch, a dragon, a mystical sword – are all bedtime story material, and so is the hand-drawn art style. The turn-based RPG genre has been waiting patiently for a shake up, and what better person to inject new ideas than – wait for it – Patrick Plourde, the creative director of *Far Cry 3*. Ubisoft is on a sensational roll at the moment.

RESOGUN

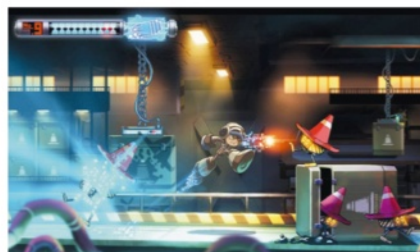
Publisher SCE **Developer** Housemarque **Format** PS4 **Origin** Finland **Release** Nov 15 (US), Nov 29 (EU)



Resogun is a spiritual successor to *Super Stardust HD*, Housemarque's particle-heavy PS3 and Vita twin-stick shooter. The top-down perspective is gone, replaced with cylindrical levels; the 60fps action still takes place on a 2D plane, but you can see enemies spawning in the distance. Controls are as tight as you'd expect and everything in the game is made of voxels, its levels fully destructible, while a *Defender*-inspired mechanic sees you rescue humans for upgrades.

MIGHTY NO. 9

Publisher Comcept **Developer** In-house **Format** PC
Origin Japan **Release** Spring 2015



Mega Man's bell-bottomed armour is iconic enough to survive without the name. Keiji Inafune's Kickstarter project *Mighty No. 9* aims to sate the appetites of fans and introduces its own ideas too, such as protagonist Beck's ability to change form, called Mighty Skills, which grant new abilities/attacks.

PEGGLE 2

Publisher EA **Developer** Popcap **Format** Xbox One (others TBA)
Origin US **Release** November



There are new characters with new powers, new levels with new layouts, bonus objectives on every stage, and the 'ding' sound as ball meets peg has changed. It's no revolution, but six years on and firing a ball at glowing pegs is still a delight, so *Peggle*'s sequel does little to fix what was never broken.

DEFENSE GRID 2

Publisher/developer Hidden Path **Format** Mac, PC
Origin US **Release** 2014



The grandest of all tower defence games gets a sequel with character-specific perks, and towers that respect sightlines and elevation. The point is to break the usual tower defence rhythm, make players think beyond the initial planning stages and rework their strategy mid-mission, and it just might work.

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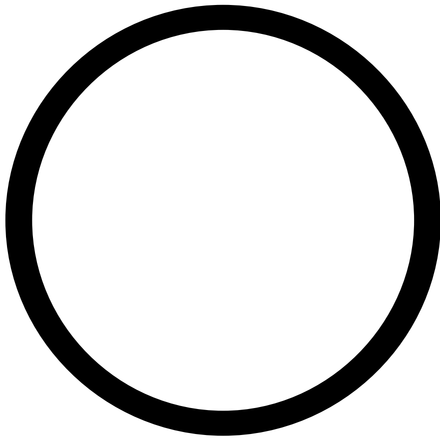
All pre-orders of Battlefield 4 will get China Rising, a free Premium Expansion Pack. Fight for dominance across the vast and majestic Chinese mainland in four massive maps, using all-new vehicles and high-tech military equipment.



Releases 1 November 2013

FEAR OF SEX

Big-budget games are notoriously paranoid about exploring sexual subject matter. Are developers being prudent or just prudish?



ur society already gamifies sex," game developer **Anna Anthropy** points out on her blog, linking to a Google image search on the word 'Cosmopolitan'. Hundreds and hundreds of Cosmo covers pop up, with coverlines such as '75 sex moves men crave', '100 best sex tips', and 'Guys rate 50 sex moves', as if women can win or keep a boyfriend by thoroughly completing a checklist. Sex is everywhere. 'Sex comedy' is a Hollywood film genre firmly marketed at young men and women: Easy A, Superbad, American Pie. We are consistently told that sex sells, and are bombarded with tits-out HBO dramas and 'edgy' TV series such as Game Of Thrones. The porn industry has more vigour than ever. And yet the best-known western videogame we have about sex is *Leisure Suit Larry*. Is the industry afraid of sex?

BioWare has tentatively included thematically serious sex scenes in its games, to much public comment, ever since the first *Mass Effect*. **David Gaider**, lead writer on BioWare's *Dragon Age* series, gave a talk at this year's Game Developers Conference called 'Sex in Videogames', in which he pointed out that sex is an exceedingly popular topic on the BioWare forum. Yet videogames, he says, have a very particular image problem. "We've had negative reactions [from the media] to go along with the positive – not all of it is particularly credible, but it's important to understand where that negative reaction comes from… you have to understand how people view our players, who they think our players are. The public views our audience as mostly children… For us, who play games, we are like, whoah, that's so far behind – 20 years behind the reality." Any attempt to make a game with sexual content, even with strict age ratings, may be construed as a subversive move for a medium until now best known for its supposed influence in school shootings.

Gaider went on to explain how the game industry itself is no better: we tend to think of players as being young adult males, which is still a good ten years behind the reality. The ESRB reports that the average game player is now 34 years old, and that 47 per cent of the gaming audience is female. Regardless, sexual content remains scarce, and female characters are still primarily the ones being sexualised. During sex scenes, the woman tends to be the focus – her body, her vocals, her nakedness.

Take the *Witcher 2*. It contains a sex scene between Triss and Geralt that involves a 360° shot of Triss removing her clothes entirely by magic, while Geralt dives into the bath with his trousers on. It's incongruous from a narrative standpoint for Geralt to do this: he's no prude. Triss's hips, buttocks, super-perky breasts and orgasmic expressions are the focus here, and her loud moans are actually the subject of the cutscene's narrative device. In contrast, there are no camera shots of Geralt's naked chest or buttocks, shots of his face or any kind of audible vocal expression from him during this fairly explicit scene. It's a neat shorthand for the way games treat sexual encounters: sex scenes are for heterosexual men to look at, and are usually shot from that male perspective. It brings to mind Spinal Tap's Nigel Tufnel who, when accused of sexism, retorts, "What's wrong with being sexy?" Perhaps by portraying sex in the same tired manner, the game industry is missing an opportunity not only to try new (camera) positions, but also to broaden its (sex) appeal.



The way the camera works in *The Witcher 2* reveals that we are meant to see more of Triss's body than Geralt's

But what about playable sex scenes? These are few and far between in videogames, and the ones we do have – such as the one between Lucas and Tiffany in *Farenheit* – seem clumsy and awkward, made more ridiculous by the idea that you can 'win' at sex by pressing a button at the right time. (*Farenheit* was rebranded *Indigo Prophecy* for the US market, with most of its sexual content scrubbed to avoid an 'Adults Only' rating.)

Richard Lemarchand, ex-*Uncharted* lead designer and visiting associate professor in interactive media at the University of Southern California, objects to sex being portrayed as an interaction that can be won, lost, or completed. "That kind of modelling in a game of sex comes at the subject with a certain mindset," he says. "There's







FROM TOP **Oakland developer Anna Anthropy's work in games often centres on sexuality; David Gaider is lead writer on the *Dragon Age* series; Richard Lemarchand, previously lead designer at Naughty Dog, is now visiting associate professor in interactive media at the University of Southern California**





FROM TOP **Former design director for Epic, Cliff Bleszinski; game designer Matthew S Burns, now at the University of Washington Center for Game Science**

GRAPHICS CONTENT

Game designer Heather Kelley has developed the OhMiBod iPhone app, which uses the phone's touchscreen to control a connected OhMiBod-brand vibrator. "There are a hundred reasons why games haven't successfully handled sexuality, but here's the one that interests me most," she says. "Computer interaction so far, including most game interaction, is 90 per cent focused on vision. Sound gets a few crumbs of our interactive mindshare, physical sensation less. But sensuality engages all the senses. How well can we simulate the pleasures of sex without engaging our senses of friction, of smell, of temperature, pressure, psychology, moisture, taste? For the time being, a really well designed erotic text game probably does a better job of simulating and evoking sex than does a graphic simulation. In today's uncanny landscape of computer-simulated human activities, virtual sex is the Mariana Trench."

a 'game of skill' to be played here – if you win the game then there's a positive outcome, and if you lose the game there's a negative outcome. I think a lot of people have that idea about sex itself on many different levels – you know, if you wear the right aftershave and you say the right things you might get to have sex with someone… I think a lot of people grow up thinking there is a right and a wrong way to 'do sex'."

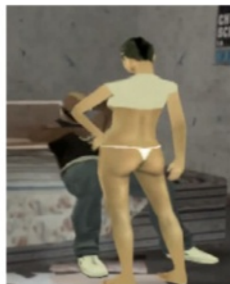
Famed for saying to a crowd at NYU Game Center that game creators put up too much front and didn't make themselves vulnerable enough, Lemarchand goes on to say that he is heartened that games are becoming more about the idea of play as being intrinsically rewarding. "The historical place that we've come from in game culture is to do with zero-sum games, or to do with win/lose states in games. I'm excited to see a shift in games away from win/lose conditions and towards systems and artefacts that embody many different kinds of playfulness. The greater this shift, the more optimistic I get about being able to map that onto unisexuality. As I have struggled to come to an understanding of sex and what it means to human beings, over the years I've come to understand that sex is not just about navigating obstacle courses and goals. Play is an end unto itself."

However, Lemarchand is still keen to emphasise how difficult human interaction is to model. "As games have advanced in the last few years, there's obviously been a move towards figurative descriptions of either quasi-realistic or stylised realistic scenes… It's very hard in computer graphics to get characters even emoting well at one another. Depicting the human body, and the human emotion… something as complex and as nuanced as that – which you need to depict sex well – this presents one of the biggest hurdles to depicting sex in games." For example, he says, "we always agonised as to whether we could get the characters to kiss well in *Uncharted*" – a game where he says the team preferred to cut away rather than depict sex graphically.

Former design director for Epic Games **Cliff Bleszinski** shares Lemarchand's sentiment. "Take *Mass Effect*, for example," he tells us, "a fantastic series that I've praised numerous times, but when the characters interact in their sex scenes it kind of looks like two cosplay mannequins rubbing together. I think the key is to *suggest* sex, and to imply first, before we try to make *Hot Coffee: The Standalone Game*."

Not everyone feels this way, though. **Martin Hollis**, the veteran designer whose work spans *GoldenEye 007* to *Bonsai Barber*, is making a game about love for GameCity Festival 2013, and he is not sure that it's just game mechanics that are steering big-budget titles away from more sexually aware themes.

"In terms of game mechanics, there's no theoretical problem," Hollis says. "Videogames have a lot of repetition. Sex itself is… repetitive seems like the wrong word, but you know what I mean. Given the repeating layered loops in the structure of most ludic or game-like games, it is silly to say that the medium is intrinsically antagonistic to sex. In fact music, dance, sex and games naturally and structurally have an intimate relation that we can loosely call 'rhythm'… What we see, however, is 6,000 years of games about competition, conflict or war. The cultural history of games we have been bequeathed makes it difficult to mine [other] tropes, mechanics or systems, so it is an uphill struggle to design the abstract part of a game concerning sex. Even the concept of a romantic game is a difficult one for a westerner familiar only with middle-of-the-road western games."





For all the scandal, *San Andreas*'s Hot Coffee minigame was quite tame and visibly unfinished. *Mass Effect*, meanwhile, featured cutscenes carefully framed to reveal little

The structural history of games can be a crushing load to bear for game designers: the fact that there is no real track record of sexually explicit interactive experiences being profitable or successful is a theoretical roadblock. Game designer **Matthew S Burns** once lamented games' structural problems on his blog, pointing out that their reluctance to leave familiar game mechanics behind causes the accompanying narrative to suffer as a result. "The very second you try to wrap actions like [shooting aliens or punching people] in a 'good story' that does not somehow address what happens during the mechanical part of the experience," Burns argues, "is the second you fail to write a good story."

Is that why *Mass Effect*, *God Of War*, even *Grand Theft Auto*'s sex scenes seem incidental and barely developed? Is it because we are failing to address sex directly, with a new language of game mechanics? Is sex doomed to be a punchline like in *Leisure Suit Larry*, or a racy subtext like in *Vampire: The Masquerade – Bloodlines*?

Imagine, though, that developers had not spent years and years iterating on technology to make violence more realistic, and instead focused on making emotional experiences, sex and the interaction between characters' bodies more believable.

Independent developer **Pietro Righi Riva** is making a Unity game called *Awkward Sex*, which simulates two human bodies that hover where your mouse leaves them: the aim is to click and drag where you would like them to go. Of course, the game is called *Awkward Sex*, and you are inclined to make the two bodies touch each other, but it's melancholy and difficult. Positioning the two humanoids to meaningfully touch each other is a slow, ➋



***MGSV*'s hyper-sexualised character Quiet prompted social-media backlash**

"I think a lot of people grow up thinking there is a right and a wrong way to 'do sex'"

almost impossible process. Imagine that we had mastered this years ago: would we be playing games that had more to say about sexual interaction?

There's still hope. Japanese games have always embraced sex as a subject and theme, although they can be very misogynistic and often avoid 3D modelling or any real approach to sex as a meaningful interaction between two characters. And there certainly isn't a dearth of actual thematic discussion of sex in the indie game scene. As previously mentioned, critic and developer Anna Anthropy often makes games about sexual experiences, shunning hyperrealistic graphics for discussion about the issues surrounding sex. Anthropy's game *Mind Fuck*, about staring down your partner erotically in a competition for points, is multiplayer and entirely based on one button – the rest of the game leverages your real-life relationship with a partner.

A text-based adventure about saucy police antics, Anthropy's *Sex Cops* is a game where the oppressive constraints of the narrative options act as a domineering dominatrix on your erotic adventure. Twine game developer Porpentine used the same constraints to make *Cyberqueen*, where your character is erotically abused by a sci-fi computer resembling SHODAN from *System Shock*. From what Lemarchand and Bleszinski have said, perhaps large-budget videogames are actually crippled by their own compulsive reliance on incredibly sophisticated 3D graphics – so much so that the complexities of sex are impossible to portray in a nuanced and non-ridiculous manner.

But exactly what is it that allows independent games to explore these issues more freely? Although David Gaider's games and the *Mass Effect* franchise have clearly done well, what stops big-budget games being more explicit, more incisive, more exploratory with sex like indie games? There's something else at work. Conservative attitudes present in western culture, particularly in the US and Australia, are limiting the ways in which such content is portrayed in games.

"The taboo of sex in console games is politically and commercially censored more strictly than that of male nudity or the taboo of killing people," Hollis says. In particular, Hollis cites the furore surrounding the Hot Coffee mod made by Patrick Wildenborg for Rockstar's *Grand Theft Auto: San Andreas*, which allowed players to access a previously unrated sex minigame that existed in the game's undeleted assets. The Hot Coffee content, although inaccessible without the mod, caused *GTA: San Andreas* to be re-rated in the US, turning it from an ESRB rating of 'Mature' to 'Adults Only 18+', which made many shops pull the game from their shelves.

This is a serious issue for publishers in terms of profits, and a warning shot for big videogame developers. But it's an issue that the makers and distributors of free games about sex – such as Anna Anthropy and Porpentine – don't have to worry about. "The bottom line is that the only way my games got made is because I made them myself, for free, on my own time without compromise," Porpentine says. "[Most commercial games] focus on realistic graphics and refuse to experiment with stylisation that would better evoke emotions and arousal. They rely on highly structural, antiquated mechanics instead of designing organic controls suited to intimate experiences. You see stylisation in every other artform, but [triple-A games are] focused on realism in a way that reminds me of when rich people only cared about extremely realistic paintings with detailed lighting."







David Cage's interest in mature dramatic themes is much trumpeted, but the partially undressed females in his work seem to serve more to titillate or provoke rather than address characters' sexual motivations or desires. Examples from his oeuvre include (from left) *Fahrenheit* (2006), *Heavy Rain* (2010) and the game engine tech demo 'Kara'

Hollis cites commercial and political censorship as one of the main reasons why big studios won't touch the topic of sex. "After Rockstar Games' clumsy and accidental ejection and Take-Two's spanking, we should expect little from console games because of self-censorship," he says. "With Hot Coffee, a conflux of conservative America, Australia and opportunistic politicians did wrathfully smite a game publisher who [had] thought naughty thoughts. People say there is no such thing as bad publicity, but there certainly is such a thing as being badly removed from the shelves. The view seems to be that 17-year-olds should be allowed to engage in virtual murder but they don't have sex, and therefore do not need to know or learn about sex in the interactive medium. Sex is very wrong and illegal, whereas mass murder is acceptable and legal – in games. One is abnormal and the other is normal; what a strange world we have made."

"When I was 12 years old it was perfectly OK to watch Robocop or Predator," Bleszinski says, "but the second that a breast was flashed on screen, my mother would attempt to toss a blanket or a coat over my head. That probably explains a lot of my adult issues. Americans in general have really weird ideas about sex and violence, and that micro-example kind of summarises it nicely." Bleszinski feels certain that commercial games can still address the diverse ways in which humans interact with each other; he's just unsure about how well they can do so.

"I still have hope that we may someday feature titles that deal with the nuances of relationships and how very



***Wicked Paradise* will be the "world's first erotic virtual reality adventure game"**

SEXY ED

Educational games do make up a small part of our interactive landscape: Merritt Kopas has made what she calls a Twine love note/edutainment piece called *Positive Space*, which teaches players about a little-known practice called muffing, while Size Five Games was commissioned by Channel 4 Education to make *Privates*, a colourful knob-joke-filled platformer that details the symptoms and cures of sexually transmitted diseases. Merritt's offering is available free on her blog, and is a practical and emotional journey through the process of discovery of a new sexual practice. *Privates* was made for teenagers, and goes for maximum laughs and bombastic graphics – a game that might never have been made commercially but is something that the educational slant has unleashed upon a teen demographic with a huge appetite for sexual content and humour.

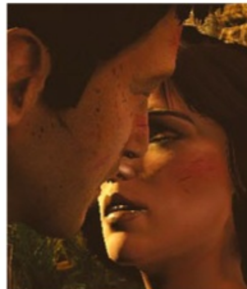
complicated yet beautiful sex can be," he says. "I have a feeling that Oculus Rift might just help with the immersion aspects of depicting a sexual experience. [But] when it comes to nuance and pacing and depiction, that's another battle altogether."

Someone who is already attempting to fight that battle is **Jeroen Van den Bosch**, the founder of Wicked Paradise. His team – a group of triple-A veterans who've worked on *Rage*, the *Call Of Duty* series, *Lost Planet, Madden* and *PlanetSide 2* – is in the very early stages of developing "the world's first erotic virtual reality videogame" as episodic content powered by Oculus Rift. Although Van den Bosch says that he will initially be making experiences targeted at straight males, he adds that he would like to branch out into making games for other sexual orientations too. The 3D virtual reality headset will offer more immersive experiences, and so is ripe for exploring other experiences than the usual death machines; already it is being lauded as a way for those who may have mobility problems to experience things they may not be able to do in real life.

Asked if he thinks there is a special risk attached to making erotic games, he says: "I think a big part of the industry evolved into choosing the safe route and rehashing their successful formula year after year. I remember in the early days of my career in the game industry there was much more room for creativity. Games with unique premises such as *Messiah*, *Magic Carpet* and *Little Big Adventure* had a place. But slowly over time, it seems that most of the triple-A studios moved towards the same style of games, and every year we have a slightly better version of the same game being released. Most of the really creative games have moved to the indie scene. These smaller studios simply don't have the same budget as large studios. There are special risks in doing a project like this, but I don't want to play it safe. You just need to have the conviction to go for it."

For Van den Bosch, the sophistication of 3D technology is more of an asset for him than a limitation. Having 3D bodies interact is the crucial part of his work. "It is difficult, but it's not impossible. I think *Mirror's Edge* did a great job of avatar embodiment, giving the player a virtual body. Ultimately it boils down to having very talented 3D character artists and animators on the team who fully understand every aspect of human anatomy and know how to translate that into realistic behaviour in a virtual environment. But at the core of it, we are using the same motion-capture techniques that are used in triple-A firstperson shooters, so just from a pure technological standpoint there is no difference."

But is he overestimating how much work it will take to have two or more 3D bodies touch each other meaningfully? Van den Bosch agrees that his job would be significantly easier if the industry had iterated on the mechanics of love rather than the mechanics of violence for years. "I always found it amazing that it's perceived 'normal' to blow people's heads off in games. However, when you create a game that focuses on happy feelings, like sex or relationships, it immediately becomes controversial. That just doesn't make any sense to me. Luckily that is rapidly changing, and I think we see it in other media as well. For example, Game Of Thrones is a fantastic series with a rich, complex storyline and copious amounts of sex. That paid off for them."







Coordinating bodies in realistic-looking games such as *Heavy Rain* (above) and *Mass Effect* (centre) is difficult. Richard Lemarchand says this kiss in *Uncharted 2* (top) was particularly tricky to get right





FROM TOP **Pietro Righi Riva is experimenting with 3D bodies in his game *Awkward Sex*; Jeroen Van den Bosch is creating episodic erotic PC games utilising Oculus Rift**

Are we talking videogame porn here, then? Is that where we are going? "No, not at all; we are *not* making porn," Van den Bosch emphasises. "Unlike porn, in *Wicked Paradise* [the developer's first game will be self-titled] the player isn't watching something passive on a screen, but rather the player is immersed in an interactive virtual reality experience. That's a huge difference. We are actually working with a critically acclaimed erotic novelist to help us create a rich, mature storyline."

Do we even need a "rich, mature storyline" to justify our interest in sex? Can't sex itself be an expression of who we are? Thanks to the fearless personal games that indie developers are making, the examples of how to treat sex as a nuanced expression of the human condition are out there, waiting for the larger culture to cast off its superficial titillation.

If it has proved a difficult task before, focusing on hyperreal graphics may not be the answer. Focusing instead on character, and the different ways characters are affected or motivated by sex, is something that could help benefit the wider videogame-playing public. Games would be the ideal environment, for example, in which to explore the idea of consent – what it is and what it means to people. If sex is addressed more directly in this way, it could lead to greater respect for others' bodies, not to mention greater respect for sex itself. ■


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16

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ATTA

P8
P6

IVE
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P4
P2
P1
P3
P5
P7
P9

After years of doubts and missteps, mingleplayer is on the march. But to where?

Mingleplayer, the broad notion of mixing single- and multiplayer in seamless and mutually beneficial ways, is a hot topic right now – which makes you wonder what it was for the many other years it's been around. What, beyond everyone's apparent need to put the 'next' into 'next generation', has brought it to the fore? If *Destiny* can be made for consoles almost eight years old, is there anything really 'next gen' about it at all?

The word itself was invented by Splash Damage to describe its wildly ambitious FPS *Brink*, and was used, according to CEO **Paul Wedgwood**, until "someone far senior to us banned it". Why they might have done so is important, and we'll come to it in a moment. But first let's establish precisely what the term meant for a studio born in the fires of playing and modding *Quake* — born, dare it be said, next to modern multiplayer itself.

ROLE MODEL

With games like *Destiny* making the MMORPG genre look old, *The Elder Scrolls Online* and its ilk are having to freshen up their message. **Paul Sage**, creative director at ZeniMax Online Studios, tells us: "We've designed the experience to be seamless between solo and group play. If you play our game solo, you can go through, get max level and beyond and have a great experience. If you want to play with a friend, there are experiences crafted specifically for that, such as public dungeons, Dark Anchors, overland encounters, etc, built for two or more. Many of our dungeons are intended for small group play, as are areas in our adventure zones. The idea behind this is that what you want to do on Tuesday may not be the same thing you want to do on Wednesday. We've got a lot of different activities for people."

Back then, as *Unreal Tournament* and *Quake III Arena* came to embody online multiplayer, the solution to your friends going offline, leaving you 'alone in the zone', was offline play with bots. "People immediately assume that's going to be a boring, bland deathmatch experience," says Wedgwood, "and you want to say that a game is more than that: an offline experience that's like playing with humans."

Mingleplayer, then, is "the idea that you can mingle in singleplayer with co-op buddies, and if they all lose their connection then it doesn't matter because you carry on playing on your own. You could drop into multiplayer and you can make that transition very smoothly. And there's no distinction, so you progress through the entire game in any direction at any point, and anybody can be human or AI in any proportion, and it shouldn't matter or affect the experience at all."

Much of *Brink*'s problem upon release, he says, is that it was compared to modern shooters. "I should have found a higher and better schema, like racing games. They've done story modes for years where you've had an online game that's been great, and you've been able to play offline in story mode and have a garage, collect cars, upgrade them and everything else – and in many ways that's what *Brink* is.

"Its structure is exactly like a racing game, with an online mode that you can play with friends, where in a great match you can't tell the difference between the two. And then, when you play offline in story mode, AI fills in for the people that are otherwise absent. One of the challenges with *Brink*, and with this as a whole, is that there's a lot of pressure to describe your game by using other games as a comparison."

Maybe that's why the word 'mingleplayer' was banned. Features and modes have been the



As a visual signal of what kinds of gameplay and player count to expect, the openness of the game environment is an obvious trick that Bungie's *Destiny* has inherited from even the oldest MMORPGs

vocabulary of game marketing and discussion since before there even was an online; and if there's one thing we now know more than ever, it's that a feature you can't explain can be worse than no feature at all. Dig up *Brink*'s reviews and you'll spend more time reading about what it is – which, in many cases, reads like someone's best guess – than how sporadically its army of bots pulls it off. This is poison to a marketing team.

Brink was hardly alone in trying to make offline gameplay relevant to increasingly connected consoles. Wedgwood himself admits that "if *Left 4 Dead 2* had a fun asynchronous tablet connection – Valve has slightly more integrity than that, but imagine – they'd basically have done everything that people are saying is going to happen in every meaningful way".

Furthermore, other models were emerging that, despite interfering much less with that vital messaging, felt just as portentous. The most obvious, when you think of how it's essentially as old as gaming itself, was the asynchronous score-chasing of *Geometry Wars* and Chair Entertainment's *Shadow Complex*. As its ephemeral *Metroid*-like stylings and value for money are forgotten, the simple fact that *Shadow Complex* compares your scores to those of your friends as you go is its legacy.

All it really does, of course, is revive the social gameplay lost in the rush to take console gaming online. The most important development of the current generation has been challenging the assumption that multiplayer should be global just because it can be – that being schooled by strangers is a viable stand-in for playing with friends, or even part of the same equation.

THE MOST IMPORTANT DEVELOPMENT HAS BEEN CHALLENGING THE IDEA THAT MULTIPLAYER SHOULD BE GLOBAL JUST BECAUSE IT CAN BE

That's not how **Matt Southern**, game director at *DriveClub* maker Evolution, ever wants to play again. "I think everybody had similar thoughts at one point about removing the barrier [between singleplayer and multiplayer]. But of course it only removed the in-game barriers; it didn't address how inadequate that would make you feel." For Evolution, preproduction of *MotorStorm: Apocalypse* is where things started to change.

"'Use me as the guinea pig,' I said, because I remember playing *Pacific Rift* and, if I had to summarise my experience, I wasn't trying to finish first but trying not to lose, and that doesn't feel nice," Southern says. "Online synchronous gaming was becoming more mainstream, and I guess by that point the *FIFA* crowd had joined in, a broader audience. If anything, it made the abuse even more acute, because it wasn't just your *Quake*-heads playing those kinds of games."

The idea of switching from knockabout games against friends to elite competition against strangers is no more appetising or sensible to Southern than, his metaphor goes, walking straight from Sunday five-a-side football onto the pitch against his favourite team, Everton. In what he calls "the online wilderness" of global multiplayer, all that anyone has in common are the commandments of play that, generally speaking, involve chalking up kills with prejudice. This is a world apart from playing with friends where the rules are no different to co-op or singleplayer: enjoy moments, tell stories.

Before and after *Brink*, with its *Enemy Territory* games and now the multiplayer component of *Batman: Arkham Origins*, Splash Damage has used asymmetrical multiplayer to reconcile the worlds of e-sports and social play. Proper roles, contextual military objectives, embedded fiction.





From top: Paul Sage, creative director at ZeniMax Online Studios; Splash Damage CEO Paul Wedgwood

The more compelling reason, then, is written throughout this feature: research. The mingleplayer trend started in racing, of course, where Bizarre Creations swapped sports network (*Project Gotham Racing 3*'s Gotham TV) for social network in *Blur*. Where asynchronous multiplayer has grown throughout Codemasters' racers as the need to come first has diminished. Where *MotorStorm 3*'s XP and betting system (you pick a rival and thus only have to beat *someone*) evolved into the private challenges and intelligent leaderboards of *MotorStorm RC*.

"I used to work at a university on a games course, and the industry would accuse us of ivory tower research with very little relationship to reality," Southern recalls. "This would frustrate me because it's not a university's job to apply theory, it's that of the creatives and business development people to figure out if something can be applied or used. And the research we did into asynchronous multiplayer and connected singleplayer was a blend of academic research, marketing expertise and practical experience from other companies. Next gen needed that: solid thinking as well as just faster processors.

"One of the things the industry suffers from is that it doesn't do its homework. Designers base all of their judgement on things they've played and nothing else. There was a lot of cynicism surrounding the very idea of learning from Facebook or, dare I say it, Zynga. But it was a case of saying, 'Look, we don't want to emulate these guys, but they might offer us lessons about future design and development'."

"DESIGNERS BASE THEIR JUDGEMENTS ON THINGS THEY'VE PLAYED. THERE WAS A LOT OF CYNICISM ABOUT LEARNING FROM FACEBOOK OR, DARE I SAY IT, ZYNGA"



Matt Southern, game director at Evolution Studios

"For a long time we've been able to tell stories in multiplayer games, and for a long time we've known that players don't get bored with playing that in sequence," Wedgwood says. "Their player stories start to overtake the game story in a really meaningful, interesting way."

So why now, this rush of games like *Destiny* (Bungie's scaling sandbox that alternates chance encounters and epic firefights), *Tom Clancy's The Division* (an instanced massively multiplayer shooter with PvE and PvP), *Ascend: Hand Of Kul*, *DriveClub* (Evolution's long-gestating social racer), and *The Crew* (a persistent online racer from *Test Drive Unlimited* veteran Ivory Tower and *Driver* creator Reflections)?

Partly it's safety in numbers, with developers offering such a tidal wave of exotic new online features that players and the videogame press have no choice but to suss them out. Wedgwood suspects that "in some ways you could release *Brink* now and people would just get on with enjoying it. It's a given. It was always a requirement, but people just weren't giving fans what they needed in their games."

In hindsight, it should have been quite obvious. At its core, Facebook is precisely what mingleplayer has been promoting for years: a virtualised circle of friends. It's a place where people feel online even when they're not, where users think nothing of the fact that just a handful of friends are ever actually signed in. Everything feels voluntary, and no one has to worry about being at the right place at the right time.

But the journey from this to, say, the terrific Autolog service pioneered by Criterion's *Need For Speed* titles, has been tough. Most of the thinking behind it – a key text for Evolution and

SCEE was the book Grouped by Paul Adams, the hotshot Google and Facebook researcher behind seminal study The Real Life Social Network, which identified the gap between virtual and actual social circles – was written for media and marketing communities. Early interpretations in gaming were then sullied, Southern recalls, by "our designers seeing grotesque spam on their Facebook and Twitter feeds fired out by various games. People were essentially saying, 'We must never use these methods again; our social and gaming habits must stay separate because they compromise each other'."



It might not have helped the scores it received from reviewers, but *Brink* forced critics to consider its online modes holistically rather than as a grab bag of systems, paving the way for other videogames

The resistance was short-lived, the spam made targeted and voluntary. User-experience experts were invited into the fabric of tomorrow's games and consoles, helping designers to 'think social'. The rise of iPad, furthermore, where there's no such thing as synchronous multiplayer, has given developers in every genre a mass of case studies.

For shooters, Wedgwood now predicts "the rise of the massively multiplayer shooter – except that, unlike *World Of Warcraft*, you can't have a dungeon with 50 people in it because there just isn't the bandwidth for that single instanced connection. So you're going to see a rise in shooters that have instanced co-op or PvP segments with smaller player counts to maintain low latency and high bandwidth per player, and a rise in the number of holding cities where people can spend real money."

Will this worsen the existing habit of shoehorning modes into games where they don't sit comfortably? Not for Splash Damage, it seems, for which *Batman: Arkham Origins* sounds like something of a catharsis. "Historically we've got a habit of thinking like 15-year-olds. *Enemy Territory: Quake Wars* was like that. It ended up taking us four years, and at one point it was a full-blown realtime strategy game in firstperson, still with base-versus-base combat. We haven't given up on the concept of mingleplayer, but our next game will be a hell of a lot easier to explain to people than *Brink* was. And my advice to aspiring developers is: try not to invent mingleplayer at the same time as, you know, direct-control free running *and* objective-based co-op multiplayer; *and* drop in and out support for transitioning from singleplayer to co-op to multiplayer; *and* a completely new gameworld and IP."

The risk for them, he warns, is that "when marketing teams do problem detection studies, they'll find a vocal minority who want a thing and then it quite easily becomes the thing they think solves what a game needs for the next iteration. Developers will be under pressure to add singleplayer to their [multiplayer] games, but for the most part it's not a healthy pursuit." ■

FIGURING IT OUT

As marketing departments work out how to sell all this stuff to the masses, developers are already enjoying some hidden benefits. "The realtime analytics that we've heard Zynga use might genuinely help us to improve the experience for players with a much more rapid response and turnaround," Southern promises. "Difficulty spikes in *MotorStorm RC*, for example, we could address far more quickly than we've ever done before. And there's actually massive mutual benefit from that, nothing sinister or exploitative. There will be things people don't like, but that's one of the beauties of this type of game now: you can, almost hour by hour, find what it is that people don't like and do something about it."

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Game developers have relied on psychological tricks for years to hold our attention – but are they in danger of losing their power?



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ot too long ago, any fan of videogames could read a magazine like the one you're holding and feel informed about nearly every quality game coming down the pipe. With the rapid expansion of the indie development scene and self-publishing opportunities such as smartphone app stores, however, that's no longer the case. One obscure developer, Donut Games, has released 35 iPhone games since mid-2009 – and not crappy iPhone games, either. How are we to keep with up with an entire industry's worth of such releases?

More games are being played than ever before, and with the rise of the free-to-play model, more of them need to keep players hooked: playing – and paying – for long stretches of time. As a result, the pressure on developers to deploy every trick in the book to keep users engaged has become a commercial imperative. In almost every game, developers attempt to entice players with leaderboards, level-up systems, and entire catalogues of collectible items, all in the name of creating incentives for them to keep playing.

The problem? After playing hundreds of games in our lifetime, our initials are etched somewhere near the bottom of countless leaderboards, our achievement tallies are higher than our annual salaries, and we've levelled up in one game or another thousands of cumulative times. We've all collected enough coins over the years to shame Scrooge McDuck.

Once upon a time, these were the bonus elements that kept us addicted to videogames, but we seldom question why or how they work. How far can games coast on these features alone, and if we play too may games that use them as gimmicks, will they cease to motivate us? Will we become the first generation of players to be immune to the once-irresistible allure of point systems and levelling up?

In its short history, Zynga has already shut down close to 30 of the games it has developed. Many of them are titles that few will remember (*Ponzi Inc*, *Roller Coaster Kingdom, Street Racing*) but there are some big names on the list as well – *CityVille 2, The Ville, Mafia Wars 2*. For Zynga, game closures are just a part of business. After closing down 13 games in one big batch near the end of 2012, CEO Mark Pincus wrote in a memo that both the shutdowns and the over 100 layoffs that followed were "the most painful part of an overall cost reduction plan". Put plainly, the axed games were losing popularity and bringing in less money than before, and thus had to go.

It seems that no single one of Zynga's social games is able to sustain itself for more than a couple of years. The exceptions to that rule, interestingly enough, are Zynga's very first game, *Zynga Poker*, and a game Zynga acquired through purchasing an existing studio: *Words With Friends*. *Poker* and *Words* are among Zynga's most popular titles, and they're also among the oldest. Of course, both games are simply repackaged forms of much older, well-known games, but is that the reason they consistently outlive Zynga's original titles?

These are games with deep, rich game design and much to teach players who stick with them. In the case of *Zynga Poker*, the company has slapped on external reward systems, but that isn't what makes the game engaging. Poker is a complex game of mathematics and psychology, and it creates a powerful social structure where players matter to each other.

Daniel Cook, founder of *Tripletown* developer Spry Fox, says it's no coincidence that Zynga's two longest-lived games feature rich multiplayer experiences. "Players burn out on the vast majority of singleplayer games," Cook says, "and most of Zynga's games were singleplayer experiences; don't let the incredibly light asynchronous social interaction fool you."

Cook adds that when a multiplayer game is richly designed, players mentor one another and encourage each other to play more often. "We tend to focus on games as if they are isolated content," he says, "but it is usually due to the bigger social system why we find games enjoyable long term."

Easy mode

Until recently, most games were designed with arcade sensibilities in mind. Players paid their money upfront to play a game, died a lot, and eventually (theoretically) built up enough skill to beat the game. "The dirty secret of these challenge-based games is that most players didn't finish them," says Daniel Cook, but game developers didn't care because they'd already made the sale. "Developers are now getting paid based on players sticking around," Cook explains, "so they lower the difficulty slope and ramp up the frequency of feedback." When you see lots of levelling, points and achievements, this is why it's happening: small, frequent rewards improve retention for most players. "I've fought this trend myself," Cook says, "but the data is brutal. Most players run screaming when a game asks them to think or be excellent."







From top: Rajat Paharia, founder of Bunchball; Scott Rigby, founder of Immersyve; Daniel Cook, chief creative officer at Spry Fox

Of course, plenty of games without strong social elements can also be addictive. Some of these games latch onto players by exploiting – knowingly or unknowingly – certain human psychological biases. For example: given the choice, most people have a deep aversion for incurring loss. In fact, the average person's preference for avoiding loss is significantly greater than their impulse for chasing gain.

This concept is known within the field of behavioural economics as loss aversion, and it was first convincingly argued in a 1984 paper written by Amos Tversky and Daniel Kahneman (Kahneman later won the 2002 Nobel prize in economics for his work in prospect theory, which includes loss aversion).

In his 2011 book entitled Thinking, Fast And Slow, Kahneman uses data collected on the betting habits of subjects to prove loss aversion's effect on the human brain, and it's easy to extrapolate the findings to improve our understanding of why collect-a-thon games can be so addictive.

Think about the pages of apps on your phone. Many of us have installed *Temple Run 2*, for example, and although we don't play it regularly any more, we find ourselves unable to delete it. We consider getting rid of it, then think about all the time we spent upgrading our character, collecting and spending thousands of coins. Deleting the app would mean losing all that work. We are, at heart, averse to the idea of losing what we perceive as earned value.

"You don't want to leave these games," says Cook. "It starts to feel like deleting [your] saved game or burning your Magic: The Gathering collection."

> If a multiplayer game is richly designed, players mentor each other and encourage each other to play

Clash Of Clans is a combat strategy game that today seems nearly invincible. It has clung to its coveted spot among the top-grossing apps in the world on both Android and iPhone since its launch, and its creator, the Helsinki-based Supercell, sent investors scrambling when it revealed that the game brings in tens of millions of dollars every month.

The problem with *Clash Of Clans*, according to gamification proponents, is that much of its design relies on shallow and manipulative ancillary elements like leaderboards, collectibles, levelling, and gems – all the staples of sugary, addictive social games. With all of those elements removed, it seems that there isn't much left to *Clash Of Clans* aside from a barebones tower defence minigame.

Rajat Paharia, founder of gamification company Bunchball and author of Loyalty 3.0, is critical of *Clash Of Clans'* design approach. He says that although things like leaderboards and levelling systems can snag players for a time, if there isn't something truly interesting at the core of a game, it will eventually die. "Whenever we engage with any kind of system, we ask: 'What's in it for me?' And there has to be a good answer to that question," he tells us.

According to Paharia, the core of any entertainment service has to either offer great depth or constantly offer something new in order to keep people interested. "With [TV networks], there's a new show every week," he says. "With a community site, the community members are the creators of that content. If I have a news site that doesn't have new articles every day, no amount of gamification will help."

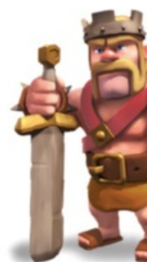
So are games like *Clash of Clans* in danger of eventually dying out unless they offer more interesting content to engage players for the long-term? "I would not be surprised at all," says Paharia.

Scott Rigby, head of the gaming research company Immersyve, agrees with Paharia's assessment. "The people developing these games are going to see their primary revenue sources dry up unless they can ensure that they're designing game mechanics with more depth," he says.

Rigby adds that there are plenty of examples outside of games where this has already occurred. As an example, he recalls a healthy living programme that Foursquare initiated in the autumn of 2010. The company partnered with health monitoring companies like Health Month to award its users badges for accomplishing healthy goals, such as walking 20,000 steps in one day and travelling 1,000 miles in total.

The idea was simple: motivate people with a videogame-like system and they'll adopt a healthier lifestyle. The programme was cancelled a little under two years later and, as one Foursquare-centric blog noted, "One big weakness of the badges... was that they didn't do much to encourage users to keep finding ways to take those 20,000 steps or run another 5km, since you could only earn each badge once."

The lesson to take from the failure of Foursquare's healthy living programme is also a testament to one of the core issues facing gamification: "You make the point of what you're doing getting the badge, rather than the activity itself," Rigby says. "This is a concern, because you're trying to promote health. You want to get people to internalise the value of those healthy behaviours, not externalise it through a badge."



After users acquired the Foursquare badge for walking 20,000 steps, Rigby argues, their motivation for pursuing

Unlock and load

In an opinion piece for CrispyGamer.com in 2009, Kyle Orland railed against the tendency of videogames to lock content away from players. "In other media, hiding certain content from paying customers until they meet some arbitrary condition borders on the ludicrous," Orland complained, "but with videogames, it's routine to see whole swaths of a game locked from view until the player achieves some arbitrary goal." In the new world of free-to-play game design, holding back content from players isn't just routine, it's mandatory. Rewards have become instrumental to keeping players hooked to a game for long stretches, and since most videogames exclusively utilise in-game goodies and content as rewards, developers place locked gates everywhere. The truth of the matter is, it's easy to keep gamers playing by dangling unlockable goodies two steps ahead. "Have enough respect for your game design that people will want to play it because it's inherently fun," Orland pleaded to developers in 2009, "not just because there's some reward waiting to be unlocked after the next goal."





From top: Frank Lantz, director of NYU Game Center; Tomohiro Nishikado, creator of *Space Invaders*

subsequent badges (for 50,000 steps or a million) slowly disappeared. "At some point I'm going to [say], 'This is much too thin for me to stay engaged,'" says Rigby.

Players know when they're being intentionally motivated, but there is a fine line between motivation and manipulation, especially when a designer is trying to persuade a system's users to do things that may not be good for them. One of gamification's most prominent voices, **Gabe Zichermann**, baldly stated the power that games have to manipulate players in a 2010 Google Tech Talk entitled 'Fun is the Future: Mastering Gamification'.

Zichermann said: "Uniquely, games are able to get people to take actions that are not always in their best interest – without the use of force – in a predictable way." In this scenario, he was talking about the power of in-game rewards to direct player actions in specific ways. Utilising such manipulative rewards can be seductive for developers, Rigby says, because they'll drive behaviour in the direction the devs want in the short term. Eventually, though, he argues, the superficial layer created by rewards will collapse.

> "Uniquely, games are able to get people to take actions that are not always in their best interest"

Since leaderboards first emerged, developers have used them as a tool to keep players playing. The very first game to use one was *Space Invaders*, released in 1978. The game's designer, **Tomohiro Nishikado**, says that although he's never really become addicted to a game, he understood the power that leaderboards could have on players. "I thought players would see each day's high scores and be motivated to pay their coins and try to beat them," Nishikado tells us. "But while rankings are effective early on, I think they become less important as time passes."

So, nearly 35 years on, are we finally nearing a point where leaderboards don't matter? Daniel Cook doesn't think so, but offers specific qualifications: "If you don't care about anyone on the leaderboard, the leaderboard loses its social power," he says.

"It is less about the number of leaderboards and more about the quality of the player's connection with the community that the leaderboard represents. Friend-based leaderboards that accurately represent skill or investment will likely always be meaningful. Strong signals of relative status within peer groups tend to entrance our little ape brains."

Some game designers, however, don't share Cook's belief in the long-term viability of leaderboards. NYU Game Center director **Frank Lantz** calls leaderboards "a crude way to make a singleplayer game into a competitive [one]", but says that game elements like level-up systems and collectible items can be valuable tools used to flesh out core gameplay.

Lantz is an outspoken fan of Riot Games' phenomenally popular free-to-play game *League Of Legends*, and he considers it to be the perfect example of a game that uses sometimes-gimmicky features like collectible items, but also has enough valuable and deep gameplay to keep players' attention for a long time.

Lantz attributes *League Of Legends'* immense success to its infamous levels of complexity, comparing it to football and poker, both of which evolved slowly over a number of years with many rule changes. He notes the origins of *LOL*'s mechanics – it evolved from the *Warcraft III* mod Defense Of The Ancients – as being particularly important. "There are [lots] of smart designers at Riot, and there's a bunch of smart and original design thinking in *League*," Lantz says, "but under the hood it is just a variant of DOTA, a game that has been evolving for ten years or more."

Despite its cobbled-together beginnings, *League Of Legends* is one of the most popular games in the world. "A decade later, and millions of people are playing and watching what just might be the new basketball," Lantz says. "Ironically, Blizzard is sitting on the sidelines watching as Riot and Valve fight over who gets to be the NBA."

Lantz describes *League Of Legends* as a "wonderful object lesson in humility", because it defies common wisdom about what makes good game design. "It's overly complicated, hard to visually parse, thematically ridiculous, and almost impossible for new players to understand," he says, "but the world doesn't care about our rules of thumb. *League* flouts every weak-ass homily about 'accessibility' and 'appeal'."

In other words, *League Of Legends* has depth. It's an incredibly rich system with a seemingly endless list of discoveries for players. Even players familiar with the mods that preceded it come into the game prepared to be surprised. Often, even after years of play, they are.

The people who play the next big freemium game will have played *FarmVille 2* and *Candy Crush Saga*. They'll have already collected a gold-plated windmill, built dozens of virtual villages and collected more candies than a kid on Halloween. They will want to be surprised – and levelling systems, leaderboards and coins alone won't do the job, at least not in the long term.



"The vast majority of people aren't seeing a reason that they should spend even a dollar on these games," says Scott Rigby. "There's so much churn, and we need to be more focused on that than on squeezing as much money as possible out of three per cent of players." ■

You call this progress?

Persuasive-game designer Sebastian Deterding on meaningful rewards



Sebastian Deterding is a designer and researcher in user experience, games and persuasive technology

What do you think about the long-term reliability of using things like leaderboards and levelling systems to keep players engaged with a game?
As the rich history of achievement-game parodies shows, it's never the design elements as such that engage. A leaderboard only works if there's an existing minimum of care on the player's part about looking good in a certain game – and if the game involves no skill, that goes towards zero – and an existing minimum of care about the people you compare yourself with on those leaderboards. If I don't care about the skill a leaderboard allows me to demonstrate and the people it allows me to demonstrate it to, I won't care about the leaderboard.

Similarly, a levelling system as such is meaningless if it does not tie in to a minimum of the level presenting a somewhat interesting challenge, or unlocking a skill, a feature, [or] a piece of content that holds inherent interest as new gameplay. Nobody eats MSG on its own or finds it tasty – you have to have some actual food. And if the food tastes crappy, no amount of MSG will change that. Nor are all kinds of food equally amenable to spicing up with MSG. Keeping with that image, *FarmVille* is a game that has little inherent taste and a lot of MSG to improve the taste. However, all games but the deepest ones – Go and poker, for example – are eventually burned out if you fully master them. The scale of *FarmVille* mostly comes down to marketing and the emerging casual audience. It involves forms of game enjoyment that are not connected to levelling up or competition to begin with, but rather relaxation and model house building, etc.

How would you define or categorise an 'achievement game'?
That term is not a real term or category – what I was meaning was a series of game parodies [such as *Cow Clicker*] that all take a pure progress system, as inspired by RPGs, and present the players with nothing *but* the progress system: sheer consistency of clicking without any skill will earn you points that earn you levels or skills.

[As I say,] what they parody is a specific type of progress mechanics in games – amassing more XP, levels and skills, etc. Jesse Schell suggested a nice distinction between virtual and real skills: in a game, challenges can become easier because the player actually improved their skill in solving them or because the player character got improved statistics that make overcoming the challenge easier without the player actually having improved their skill. The traditional critique of grinding videogames is that they are all about virtual skill progress with no real skill requirement except the time – and increasingly, virtual item buys – invested.

As a designer, do you consider grinding games to be of minimal value to players?
Progress mechanics appear in all kinds of games and, like all mechanics, they can be designed well or poorly. If achieving a certain form of progress – XP, a level – is tied to an in-game challenge that actually presented some form of challenge, then its attainment, all else being equal, will be much more enjoyable and meaningful to the player than when it is pure persistence or time investment. Even that may vary; if a player currently seeks relaxation not accomplishment from a game, then a mindless clicking game might be just the right thing. Boredom and frustration set it when players are interested in the sense of competence that overcoming game challenges can bring – and then the game holds no real challenge.

AD TRAILING THONG
GAD LONGHAIR TINT
HANGDOG IRAN TILT
DANGLING HAT TIRO
HAD IGNORANT GILT
DANGING HARLOT IT
GRADING HALO TINT
NIGGARD THAT LION
HANDLING TAG RIOT
HANDING TOTAL RIG
HOARDING ANT GILT
DIALING TAG NORTH
DILATING HANG ROT
DIGITAL TANG HORN
AIDING GRANT LOTH
DRAINING THAT LOG
RAIDING THAT LONG
LADING GHAT INTRO
DRAGON TAIL NIGHT
LANDING GATOR HIT
GRAND TOTALING HI
LOADING RAT NIGHT
DARLING TANGO HIT
LARDING HOGAN TIT
DIALOG RANT NIGHT
ADORNING LA TIGHT
DONATING HALT RIG
DARNING TOGA HILT
ADORING ANT LIGHT
DARING HALTING TO
DARTING HAT LINGO
TRADING HANG TOIL
DATING LOATH GRIN
GLAD THAT IRONING
GLAND RATIO NIGHT
DANG RATION LIGHT
GONAD ALRIGHT NIT
DRAGON GIANT HILT
GRAND HATING TOIL
GOAD RATLIN NIGHT
DRAG LATHING INTO
GRAD TAIL NOTHING
HAD TOTALING RING
HAND GROAT TILING

PLAY

REVIEWS. PERSPECTIVES. INTERVIEWS. AND SOME NUMBERS

STILL PLAYING

Amnesia: The Dark Descent PC
A Machine For Pigs inspired another trip to Brennenburg Castle to remind us of the first *Amnesia*'s unnerving charms. While the game made waves in 2010, its legacy is only now becoming clear as the firstperson horror genre becomes ever more crowded. It might be looking a little rough around the edges, but that hasn't reduced even slightly its capacity to scare (admittedly, some of those frights are down to the voice acting).

Euro Truck Simulator 2 PC
It is, on paper, perhaps the most boring game in the world. Who could possibly want to ferry cargo from the outskirts of one drab European conurbation to another, in a vehicle that marries a snail's pace to the turning circle of a tank? Yet navigating this network of European motorways is oddly relaxing, the levelling system is strangely compulsive, and what a pleasure to finally play a driving game with turn signals.

Dark Souls 360, PC, PS3
Its brutal first few hours aside, *Dark Souls* is not a mechanically difficult game. Sure, mistakes are sorely punished, but a savvily levelled hero can withstand all but the toughest of blows. Instead, difficulty comes from the way it explains – or rather doesn't explain – its systems. With gear upgrades prized above skills, and some wiki-assisted levelling choices, the late game is a cakewalk, and NG+ is a breeze. Poor Sif didn't even get a chance to limp.

REVIEWED THIS ISSUE



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Economies of scale

Games are getting bigger, but so are their pricetags. The recent *Marvel Heroes* was free-to-play, but buying a pack of four playable superheroes at launch would set you back £65 – more than double the price of the average PC game for a fraction of the content. F2P-style monetisation is still new to home consoles, but it's increasingly rare to find a 360 or PS3 game that isn't obviously set up to take more of your money after launch.

After 50 hours playing *Grand Theft Auto V* (p86), and with the initially fogged-out map of San Andreas state now all but filled in, the sole sign we've seen of post-launch microtransactions is a few blank spaces on a gun-store wall display. This is an enormous game, with a map bigger than those of *San Andreas*, *GTAIV* and *Red Dead Redemption* combined, and Rockstar puts the cost of making and marketing the game at $265 million. Yet nothing is tantalisingly walled off, and there's no Season Pass with which players are invited to sign up for a steady trickle of post-release bric-a-brac. We expect that large-scale story content in the manner of *GTAIV*'s two expansions will follow, and surely the busy playground of *Grand Theft Auto Online* will offer all manner of monetisation hooks. But for now, everything is there, and it's remarkable.



By contrast, *Disney Infinity* (p90) could not be more different. It is also vast, with bespoke adventures for each of its figurines and a flexible, creative Toy Box mode. Yet practically from the minute you boot it up, it starts reminding you of what you *don't* have. It's a powerful device, especially given how well versed its target audience is in the dark art of pester power, but it does leave a rather sour taste in the mouth. Rockstar's game, then, is a welcome exception to an egregious, and increasingly pervasive, rule.

Grand Theft Auto V

If first impressions count, *Grand Theft Auto V* is in trouble. This is a miserable opening, breaking the series tradition of dropping you into a fast car in a beautiful city, instead kicking off in a snow-driven town in the American Midwest with a flashback heist. The first thing you do is hold up on the left analogue stick for two seconds before control is snatched away from you. Behind the wheel of a car, you spin out on icy roads. As a way of beginning a story it makes sense, but it's a lacklustre way to open a videogame. Thankfully, within half an hour we've got one car stuck on a fire hydrant, flipped another over into the path of an oncoming train, and taken a third on a police chase out of the city and made our escape on a jetski. Normal service is resumed. And it just gets better from there.

We'll start, even if Rockstar won't, with the city. Los Santos borrows *Red Dead Redemption*'s dramatic skies and soft colour palette, lit with bloom and lens flare by day and gentle, fuzzy depth of field at night. It has almost no loading screens – borrowing *Max Payne 3*'s enforced slow walk to disguise cutscene loads – and runs at a consistent 30fps. It's a remarkable recreation of Los Angeles' urban sprawl, a stark contrast of poverty and the superficial veneer of immeasurable wealth. And like LA itself, it's intimidatingly large at first, the whole world open from the start, the map filling in as you explore. Drive a few blocks from South Central's street-corner gangbangers and you'll find the primped boutiques of Vinewood. Head north and you'll arrive at the hilltop mansions of the city's monied elite; keep going and you'll find desert and the verdant hills surrounding Mount Chiliad. Down south there's a ramshackle beachfront, a pier (with working funfair) and the massive Los Santos International Airport. And around it all, a picture-postcard body of water that, for the first time in the series, is fully explorable.

And what water. Hop on a dinghy or a jetski and you'll be flung about by a delightful physics model, ice-white surf spurting out from beneath your craft as you jump off the crest of a wave and crash back down onto the surface. Dive down below and you'll find sealife and sunken treasures. There's a whole world down here, yet it's only used in a single story mission. You have to *want* to explore this new-look San Andreas, but the visual rewards for doing so are rarely less than stunning, and there are gameplay benefits too. Play tennis to increase your strength stat; ride a bike to up your stamina; visit a firing range to improve your aim.

Yet while the world has always played the starring role in 3D *GTA*s, here it's just a setting, with the focus squarely on the game's three protagonists. Franklin is the most traditional *GTA* antihero, brought up in poverty and working to escape it, ideally by honest means but knowing the reality will likely be different. Michael, the retired bank robber living in Los Santos

Publisher Rockstar Games
Developer Rockstar North
Format 360 (version tested), PS3
Release Out now

You soon realise that, rather than the gangster flicks of GTAs past, you're now playing an episodic TV show



under a new identity after faking his death at the climax of the opening flashback, is, by contrast, a character who could never anchor a *GTA* game by himself. His story – a faded hoodlum in therapy, whose wife cheats on him, whose kids hate him and who finds himself increasingly irrelevant in a city that prizes youth and beauty more than anywhere else on the planet – simply doesn't fit the traditional *GTA* mission template. Yet his inclusion enriches the story and its setting, adding in modern Californian themes like therapy, infidelity, the emptiness of wealth and young America's unquenchable yet unfussy thirst for fame. You can't shoot your way round those. His story can be cutscene-heavy, but is so vividly realised and finely delivered that you won't even notice, much less complain. And even if you do, there's enough bombast elsewhere to make up for it.

Most of that bluster comes from Trevor. He's brilliant, blessed with most of the best lines, an unstoppable ball of aggression, hate and pathological violence. He's the sort of person who'd pick up a hooker then run her over and take his money back, or uppercut a hiker off the top of a mountain. The kind of guy who'd bring an RPG to a knife fight, and who'd wake up on a beach wearing only his underwear and spend a couple of days doing missions in his pants. If Franklin is the lens through which we have traditionally seen *Grand Theft Auto* and Michael is the story its creator has long wanted to tell, Trevor is the character who best embodies the way tens of millions of *GTA* fans actually play the game.

The trio doesn't just solve *GTA*'s thematic niggles but some of its pacing problems, too. Press and hold down on the D-pad and you can switch between the three at will. Traditionally, if a mission ended with you out in the sticks, you'd have to make the trek back to civilisation. Now, you're a button press away from warping back into the thick of things. Rockstar uses it to gracefully nudge you towards this vast world's many activities, too – Michael, for instance, might be parked up outside a tennis court, or stuck in traffic near his shrink's office. You'll find yourself naturally switching every few missions, and playing the game in character, choosing vehicles, activities and radio stations based on who's under your control. You soon realise that, rather than the gangster flicks of *GTA*s past, you're now playing an episodic TV show. It's a construct that's as well suited to lost Los Santos weekends as it is the sporadic two-hour sessions of the time-poor, one that doesn't just keep up the pace during downtime but also drives the best set of missions the series has ever seen.

The heists are the focal point. The promise of choice may have been overstated, with Lester, the crew's tech wizard, giving you two options that rarely stray from a decision between being smart or going in loud. But each



RIGHT While the protagonist trio are obviously the core of the game's heists, you pick a supporting cast whose cut of the payoff relates to their ability. A word of warning, though: the cheaper ones will let you down more often than not. BELOW Michael already lives a life of luxury and Trevor prefers his trailer park life out in the sticks, but Franklin is quick to escape poverty and leave his friends behind. We'd probably do the same thing for a hillside infinity pool





ABOVE Customisation returns, with beards and hairstyles changed at the barber's, and new duds from three Los Santos clothing chains. Weapon attachments are available, and characters have their own moddable cars



If Rockstar has cut anything back to ensure *GTAV*'s steady framerate it's texture resolution, but gentle motion blur and depth of field effects mean you'll only notice if you're really looking for it

You can stop asking for a new *Wave Race* now: the water physics and shimmering reflections in *GTAV* are remarkable. The AI isn't exactly formidable, but jetski races are set to be a highlight of *GTA Online*

is so much more than just a binary choice affecting a single mission. Take the smart option in the opening heist on a jewellery store and it sets in motion a series of preparatory tasks in which you case the joint, find an alternative entry point at the opposite end of the block, steal a van and uniforms from a pest control firm, then a truck carrying nerve gas. The heists only become more intricate from there, their complexity rising in proportion to payouts, with the prep work alone for one heist halfway through the game taking us four hours to complete – although we'll admit to being distracted along the way. This is *GTA*, after all.

The Strangers & Freaks side missions, meanwhile, are character-specific but make up for the absence of switching by filling out the richness of the world with a supporting cast that typifies modern California in all its vapidity. In town you'll find paparazzi, celeb stalkers, fitness freaks and adrenaline junkies; out in the sticks lie Minutemen, and rednecks shooting critters for kicks. All are shot through with Rockstar's signature dry wit, and introduce you to locations and distractions you might otherwise miss – a triathlon across Vespucci Beach, perhaps, or a BMX race down Mount Chiliad.

There are wrinkles, but none so serious as to prove ruinous. The game's treatment of women – every female in the game exists solely to be sneered, leered or laughed at – is a real concern until you realise that it applies to the male characters as well. As Trevor, there's a forced torture scene that will make you thoroughly uncomfortable until five minutes later when, back on the road, you misjudge a corner, kill a handful of pedestrians and laugh out loud, and it becomes apparent that Rockstar has made quite a powerful



LEGALISE THIS

While the Strangers & Freaks side missions are single-character stories, some will be seen by each of *GTAV*'s three protagonists in turn. One well-dressed stoner sits behind a desk in a city square gathering support for a drive to legalise cannabis, and is only too keen for his would-be supporters to partake in his wares. Michael agrees, and spends the next few minutes in a weed haze shooting aliens who appear from the ether. Trevor does much the same, with respawning clowns. Both feel like weak jabs at *Saints Row*, but the punchline comes when Franklin, a seasoned smoker, is offered a toke. The guy must be on some good stuff, however: one of Franklin's purchasable properties is a beachfront outlet for medical marijuana, suggesting that the battle has long since been won.

point, one that will later be acknowledged by one of the protagonists. We are all despicable people.

These issues fade into insignificance not only in the context of the scale and coherence of *Grand Theft Auto V*'s world, but also the way in which Rockstar has acknowledged criticisms of the series and fixed them one by one. Checkpoints are frequent. You can save anywhere. You can still hang out with friends, but it's always your decision: if the phone rings it's because the story requires it. No longer do we have to forgive a colossal open-world's mechanical shortcomings as we wrestle with cumbersome controls: this is *Max Payne*'s weighty gunplay, *Midnight Club*'s vehicle handling and *Red Dead*'s animation. *LA Noire*'s facial tech hasn't made it in, but that game might just have had the most powerful influence of all. Fail an action sequence three times and alongside Retry and Quit appears a new option: Skip. How many of those tens of millions of *GTA*s sold have been put away unfinished because of a seemingly unassailable difficulty spike?

No one makes worlds like Rockstar, but at last it has produced one without compromise. Everything works. It has mechanics good enough to anchor games of their own, and a story that is not only what *GTA* has always wanted to tell but also fits the way people have always played it. It's a remarkable achievement, a peerless marriage of world design, storytelling and mechanics that pushes these ageing consoles to the limit and makes it all look easy. As we stand on the brink of a new generation, *GTAV* sends an intimidating message to the rest of the industry. Beat that.

10

Post Script

GTAV isn't just an evolution of Rockstar's mechanics, but its music too

Nowadays we take licensed music for granted, but it wasn't always like this. Rockstar laid down the open-world template with *Grand Theft Auto III,* but it was actually *GTA2*'s London expansion that first featured a licensed soundtrack, courtesy of Trojan Records. The UK dub and reggae label's work made for a powerful addition to the game's sense of place, and Rockstar took it to its logical next level with *GTAIII*'s genre-spanning set of radio stations. Reggae returned with K-Jah; record labels were again enlisted, with UK jungle imprint Moving Shadow providing the sounds for MSX FM and New York label Game Recordings soundtracking the hip-hop station, Game Radio FM. Elsewhere were the now-standard classical, pop and '80s stations – with the latter, Flashback 95.6, saying much about Rockstar's influences: every track played was also featured in the film Scarface.

It was a powerful mix that not only covered a broad spectrum of tastes, giving players a filmic soundtrack to accompany their rampages, but also let Rockstar further enrich its world with commercials and talk radio stations. Later the formula would be finessed with the addition of news reports based on the main story thread, and the genre mix expanded to include country and hard rock, but *GTAIII* laid the foundations, and its influence persists in open-world games to this day.

The games that followed were set in specific time periods, and once again radio was key in reinforcing the player's sense of not only being in a specific place, but also being there at a set moment in time. *Vice City*'s '80s pop, hair metal and blue-eyed soul was followed by *San Andreas*'s alt-rock, Chicago house and G-funk-era hip-hop. *Grand Theft Auto IV*'s contemporary setting, however, gave Rockstar no such luxury, and instead of drawing on a rich lexicon of pop culture it passed the reins to real-world DJs and producers: Funkmaster Flex and DJ Premier spinning hip-hop, Francois K playing electro, Roy Ayers running the jazz station and Iggy Pop on Liberty Rock Radio. There were celebrities, too, with fashion designer Karl Lagerfeld hosting disco station K109 The Studio and actress Juliette Lewis doing likewise on Radio Broker.

Grand Theft Auto V sees Rockstar continue in that vein. Pam Grier hosts the soul station Lowdown FM; British model Cara Delevingne runs Non-Stop Pop. Big-name muso talent includes Gilles Peterson, Soulwax, Bootsy Collins and Lee 'Scratch' Perry. As in *Grand Theft Auto IV,* it's a fine cross-section of contemporary music, ticking all the genre boxes and enriching Los Santos's already remarkable sense of place. But here, Rockstar does something different: where Scarface influenced its early licensing experiment, here the biggest inspirations come from the studio's own games.

It's impossible not to marvel at how far we've come from the early moments as CJ cruising San Andreas's city streets



Given the setting, *San Andreas* is an obvious influence even before you reach for the radio dial, but when you first get into a car as Franklin and tune the radio to West Coast Classics, it's impossible not to marvel at how far we've come from the early moments as CJ cruising *San Andreas*'s low-poly city streets. Bombing down a rural highway in Trevor's pick-up truck listening to Waylon Jennings' Are You Sure Hank Done It This Way instantly recalls a nighttime *San Andreas* police chase soundtracked by Whitey Shafer's All My Exes Live In Texas. And just as you start to think you're in early-'90s Los Santos, a smartphone ad or a news item on fracking yanks you back into the present.

Vice City's there, too, most of it coming from Kenny Loggins' self-deprecating turn hosting Los Santos Rock Radio. It's a misleading name, its soundtrack drawing not on contemporary heavy guitar music but 20 years of classic rock that could, maybe should, have featured in Rockstar's snarky love letter to '80s pop culture – REO Speedwagon, Phil Collins, Queen and The Doobie Brothers, as well as Loggins' own glistening yacht rock.

The absence of a need to reflect a specific point in time runs through *GTAV*'s soundtrack and empowers a remarkably diverse selection of music, even within genre constraints. The pop station puts All Saints next to Rihanna, follows Fergie with Hall & Oates, mixes Robyn's electro-pop with N-Joi's piano house. There are 250 songs spread across 16 music stations, with barely any filler, and many tracks will be unfamiliar to all but serious musos. Where others delight in playing you music you already know, Rockstar seeks to educate.

Ask ten people for their favourite moment in *Red Dead Redemption* and most will say the crossing into Mexico. It's a powerful visual moment, the soft yellows and greens of New Austin giving way to burnt red clay. But it would be nothing without its soundtrack, José González's Far Away, a song played only once in the whole game and is all the more powerful for it. *GTAV* pulls the same move, and it's every bit as memorable.

Then there's the score. Health's work on *Max Payne*'s music has led Rockstar to do the same again, but with multiple artists – Tangerine Dream's Edgar Froese, hip-hop producers Dr Alchemist and Oh No, plus longtime Rockstar favourite Woody Jackson. The results are remarkable, and once again enriching, whether it's a gentle synth as you parachute down from the sky or the throbbing Krautrock backing to a heist gone awry. No longer is *GTA*'s music reserved for when you're behind the wheel: it's everywhere. It may be its world design and improved systems that catch the eye, but *GTAV* is also a compendium of everything Rockstar has learnt about the power of game music in the past decade. ■

Disney Infinity

There are a great many things to say about *Disney Infinity*, some celebratory, some not so, but one thing's for certain: it's the most authentic Disney game ever made. It captures the company's keen balance of the imaginative and the formulaic; its sense of inclusiveness and rapacious commercialism; its blend of immersion and artifice. It's a game that many, if not most, children will be enthralled by and will want to spend hours tinkering with – and many, if not most, parents will begin to hate its money-spinning pulls.

Like Disney, it stretches to encompass the multitude of properties it holds, both live action and animated, featuring hundreds of artefacts, settings and styles from all of Disney's history – from Snow White and Fantasia to Alice in Wonderland, Aladdin, Finding Nemo and countless others. And, like Disney, it remains internally coherent even while sprawling with various modes and settings that compete for attention. Sadly, they're let down by a convoluted menu system that's overly complicated for its target market, with a mess of jargony names that it's a struggle to remember the function of, such as Adventures, Mastery Adventures and Prebuilt Toy Box Worlds.

Essentially, however, *Infinity* consists of two elements: Toy Box and Play Sets. The latter are themed adventures for players to embark on, either alone, with a splitscreen partner or up to three others online. To play, you place a special plastic cube on the Base. The Starter Pack's three – Monsters University, Pirates Of The Caribbean and The Incredibles – come on a single cube, while the separate Lone Ranger set has its own. You also need to place a matching *Infinity* character figurine on the base; just as in Activision's *Skylanders*, the figurine stores a record of its XP level and the tools you've earned so you can use it on a friend's console.

The adventures themselves are essentially thirdperson 3D platformers, but they're carefully distinct from each other in tone and play and are far more than just ripoffs of *Skylanders'* hack-and-bash action. They're a direct evolution from developer Avalanche's own *Toy Story 3*, which gave players a large free-roaming environment peppered with missions to play. Infinity is infused with *Toy Story 3*'s style, from the way buildings, objects and playthings can be placed in the world to editing the appearance of buildings and the little people that bob happily around them. The characters are controlled in the same manner too – they can pick up and throw players and objects, use vehicles, and are equipped with a handy double jump.

The Incredibles is the most straightforward Play Set. Syndrome, the film's antagonist, is on the rampage, and you must reestablish the heroes' secret base and fight crime in an open city that grows as your progress opens bridges to new islands. As you play, your

Publisher Avalanche Software
Developer Disney Interactive Studios
Format 360, 3DS, PC, PS3 (version tested), Wii, Wii U
Release Out now

It's a game that many, if not most, children will be enthralled by and will want to spend hours tinkering with



character earns XP and money that you can spend on unlocking buildings and abilities such as the Glide Pack, which allows you to glide around the city. Crucially, they're also unlocked in *Infinity*'s Toy Box, along with many incidental items scattered around in red and green toy capsules. The missions are somewhat repetitive, however. Avalanche has only found so many things for its superheroes to do – mostly punching things or throwing criminals into a paddy wagon. At least battling is effective, its child-friendly simplicity spanning a three-hit combo, dodge and a charge move.

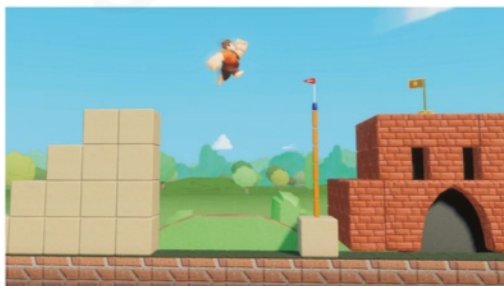
The repetitiveness underscores Monsters University's collection missions, too, although the focus here is on sneaking rather than combat. It's prank season between rival colleges Monsters University and Fear Tech, and MU is trailing badly, the trees in its quadrangles festooned with toilet paper. The missions are a mixture of clean up and subterfuge, and your tools are a toilet-paper launcher and the Monsters University characters' unique scare moves. With death off the menu, the main challenge is in sneaking to locations without enemies throwing you back.

Pirates Of The Caribbean is the Starter Pack's finest Set, somehow squeezing ocean voyaging into *Infinity*'s core mission template of platforming and combat. Sailing between islands on the high seas feels appropriately swashbuckling, and even a little like *Wind Waker* as you stop off at incidental atolls and indulge in ship-to-ship combat that's more immediate and fun than *Assassin's Creed III*'s. If the four or so hours Pirates takes to complete (with plenty of scope for extra exploration on top) were extended, it'd easily be worthy of a standalone release.

Ultimately, the Play Sets are jumping-off points for the Toy Box mode, which is where *Infinity* begins to live up to its name. Toy Box starts with you standing on a block hanging in space; to extend it, you simply add another. Its enormous palette of shapes and editing interface lack the intuitive flexibility of *Minecraft*'s blocks, but Toy Box's more prebuilt nature supports all kinds of informal play. There are racetrack sets and spinning platforms to challenge friends with, AI enemies for impromptu battles, and castles, mountains and wrecked ships for scrambling. Adults may be frustrated that items are only gradually unlocked with Spin Tokens, won by levelling up characters or achieving challenges, but for kids it provides a benevolent canvas.

The Starter Pack will provide involving and creative play over tens of hours, but where it goes next is another matter; very little content is gated by not owning specific characters, but *Infinity* always reminds you of what you don't have. Like a trip to Disney World, you'll always feel you could be doing more. But then that's also a mark of *Infinity*'s success: it's a Disney game that finally lives up to the name. **7**





ABOVE *Infinity*'s Toy Box mode doesn't allow you to tinker with game logic, but you can use sets of blocks and spinning panels, aided by a 2D camera mode, to create more informal platforming challenges



TOP Vehicles allow for racing on a set of track items, as well as speedier traversal of *Infinity*'s often wide expanses in both Adventures and Toy Box levels. ABOVE Taken from a mix of CGI, hand and stop-motion animation and live-action film, *Infinity* gracefully combines the disparate appearances of its characters by slightly stylising them, but they remain true to their source. RIGHT Some vehicles – such as Cinderella's Coach, which is modelled here by Monsters Inc's Sully – are only available in the Toy Box by inserting Power Discs





Infinity's draw for children is the chance to play with beloved characters; for Disney, it's a terrifying potential for profit

Post Script

How the Starter Pack is only the beginning of Disney's designs on your wallet

As you wander, bash, plough and craft your way through *Disney Infinity*'s Play Sets and your own Toy Box worlds, you'll find special chests. They can only be opened by the character shown in the icon on them, and if you don't have that character, you get to see a little video of it in action – an advert for a product that costs £14.99.

So what do you get for the money? First, a nicely sculpted figurine. The chests contain special items for the Toy Box – a nice bonus, but supplementary. The Play Sets also contain character-specific challenges such as time-limited collection runs or combat tests, but they're hardly premium content. The in-game character itself? It may come with a special ability – see Dash from The Incredibles – or it might have no unique abilities at all – see Davy Jones from Pirates Of The Caribbean, who shares his flintlock and sword with the Starter Pack's Jack Sparrow.

In some ways, Disney has been hamstrung by the fundamental nature of offering extra content through separate purchases. On one hand it has been careful not to gate any area of the Starter Pack's Play Sets to specific characters, so you don't need to spend extra money to see all the adventures have to offer. But on the other, this (relatively) generous policy devalues the characters themselves. In being such an accessory to the main game they feel like a naked grab for your wallet, one supported by those little adverts reminding you – or, more likely, your kids – of what they're missing. And by offering so little that's truly new, it's likely kids will quickly tire of it before clamouring for the next one.

It would be unfair to single out *Infinity*. Children exist in a constant swirl of commercial pressures, and *Infinity* merely adds to them; but the general air of commerciality in the game feels misplaced. The character introduction videos are just one example of the game's language of selling. It's also there in the little intros to new items that your progress in Play Set adventures has unlocked. Their aim is to indicate that they're available for purchase with the coins you've amassed through play, but they come across like TV adverts: insistent, flashy, and less about information than persuasion.

Then there's the fact that these unlocks need purchasing in the first place. It's a standard game mechanic and you rarely need to grind for coins, but in a game for children the system seems unnecessary; you're rarely faced with an interesting decision to choose one item over another because most are mandatory to progression, and you usually have the money in stock anyway.

All of which makes the presence of some of *Infinity*'s circular Power Discs questionable. Purchased in a random pack of two for £3.99, they fit under your figure on the Base to give it special powers. Bolt's Super Strength (a ten per cent damage boost) and Fix-It Felix's Repair Power (20 per cent more health) are fine enough, but Pieces Of Eight's 10 per cent loot bonus seems more like the kind of in-app purchasing ploy found in free-to-play games. Add to it the gambling inherent in buying a pack in the hope of finding a specific disc, and it looks more and more distasteful.

There's an argument that games should be a place of escape from the realities of capitalism – that Cinderella's Castle, The Lion King's Pride Rock and the Epcot Center should be places of fantastic adventure, not grubbing for money. A great deal of *Infinity* seems to have that aspiration, and it's hard not to admire it. But *Infinity* as a whole is underpinned by a commercial bent that plays on everyone's desire to collect. In fact, it's immortalised in *Infinity*'s Hall of Heroes, a special location that shows off all the extra material you've added to the game. Your characters are displayed as statues, your power discs as plaques in the floor. The more you add, the grander the Hall appears, and every empty plinth cries out to be filled. ■

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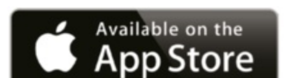
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Puppeteer

Publisher Sony Computer Entertainment Inc
Developer SCE Japan Studio
Format PS3
Release Out now

In any theatre-going experience there's an electric moment: those minutes just before the curtain goes up. A violin warms up in the orchestra pit, the notes tentatively assembling into a chord. You can sense that something special is about to happen. *Puppeteer*'s menu screen recreates this pre-show ritual with such sensory fidelity that you are awash with good vibes before you press a single button. And you're right to feel expectant: *Puppeteer* can't wait to dazzle and delight you, and there's a children's bedtime story for the ages waiting behind that virtual wall of red fabric.

Puppeteer follows the exploits of a boy hero named Kutaro whose puppet head has been chomped off by the evil Moon Bear King. This grisly grizzly has been stealing the souls of sleeping children and storing them inside puppets so that they can toil away in his moon castle. A mysterious witch with equally mysterious motives gives Kutaro a pair of magic scissors called Calibrus, and explains that he must collect a number of Moonstone shards by defeating the Moon Bear King's generals.

Games in recent years have been deftly mixing the traditional side-scrolling 2D perspective with fully 3D environments, and *Puppeteer* is the new high-water mark of such experiments. With scenes turning over every few minutes – the scenery plunges into the floor with a rambunctious, creaky clatter, allowing the replacement set to drop into place for the next area – there's a beguiling sense of depth and tactility to all the elements tumbling about onscreen.

From a visual design standpoint, *Puppeteer*'s lighting is a high point, at times astonishingly so. SCE Japan Studio has made a virtual theatrical lighting rig, 140 distinct lights with realtime volumetric lights and shadows. The dance of light and shadow makes the onstage action feel infinitely more dynamic and emotionally potent than the uniformly bright, candy-coated colour palette of your traditional Nintendo platformer. Every piece of the game has the handcrafted aesthetic popularised by *LittleBigPlanet* – wood, fabric, paper – which means that the light always has compelling surface textures to bounce off. One of the game's acts features a Halloween-themed world, and the sumptuous texture of its backlit pumpkin-shaped paper lanterns is a particular highlight.

***Puppeteer's* aspiration is** to make every Japanese game industry doomsayer look like a buffoon. The depth of imagination evident in the game's character design reminds you that its native industry has cranked out thousands of monster designs for RPGs over the years, and the vast majority of them are still solid gold. *Puppeteer* carries on this tradition of quirky creatures, but imagines how they might look if you were carving them out of wood, gluing on additional pieces and binding them together with twine. Behold the Lewis Carroll homage of *Puppeteer* giving us a jackrabbit perched atop a unicycle whose wheel is – you guessed it – a clock.

Behold the Lewis Carroll homage of *Puppeteer* giving us a jackrabbit perched atop a unicycle whose wheel is a clock



OK, so it's gorgeous to look and bewitching in its storytelling and voice acting, but is it fun to play? Occasionally, but there is a glaring missed opportunity throbbing at the centre of the game. When you realise that the Moon Bear King's decapitation of Kutaro means your puppet hero can collect myriad replacement heads, that suggests a host of potential plot routes, maybe even a sprinkling of adventure-game puzzles to break up the platforming.

No such luck. The heads in *Puppeteer* are charming but largely cosmetic. Every so often you'll see a shimmery reflection of a given head against a surface, which means you can unlock a bonus level or item drop if you press down on the D-pad while sporting the corresponding head. Most of the time you won't have the correct head; you'll just sigh and move along.

Heads also function as health points. You can have a total of three in your inventory at any given time. If you take damage, the head will pop off and bounce around the level. If you can retrieve it within three seconds, the headless Kutaro will stick it back on. When you're chasing your head, there's a delightful animation of him stooping over and reaching out his hands like a short-sighted old man frantically scouring the living-room floor to retrieve his dropped spectacles.

The platforming challenges, however, lean towards the mundane. You'll smile at how Japan Studio reimagines the typical platforming trampoline – springy bonsai trees in a Chinese-themed stage, bellies of snoozing, reclining yetis in the obligatory snow level – but these flourishes never fully stop the bombing, hookshotting and pit-leaping from feeling overfamiliar and underinspired. The most original navigational idea the game gives you is the ability to fly with your magic scissors by snipping trails of paper vines, clouds or stars. Killing a boss by snipping your way through his fabric cape of a torso feels far more satisfying than shooting a glowing orange spot, but 20 minutes later you're in an auto-runner where you're only responsible for pressing X to jump over obstacles and pressing down on the left analogue stick to duck under spikes. When developers crib iOS gaming's most tired ideas, you have every right to accuse them of phoning it in.

Puppeteer's gameplay isn't bad, just a little limp, and happily not enough so to undermine all the other reasons to enthusiastically recommend it. When the offscreen narrator, voiced with arch-Britishness by Stephen Greif, welcomes you to "the magical theatre of the strange and fantastic", his adjectives are right on all three counts. And you rarely get magic that feels quite this immaculately handcrafted.

7

ABOVE Although fire, water and ice levels are common in platformers, there really should be more pirate levels. Prepare to fire your cannons and then use your magic scissors to traverse the rising smoke. **RIGHT** *Puppeteer* does a wonderful job of varying the scale of its whimsical characters. Some are as small as your puppet protagonist, while others fill the entire frame



BELOW The 3D trick of having things lurch out of the screen and into your personal space fits well with the context of a staged theatre production. The Halloween-themed stage offers some of the most sumptuous plays of light in the game





Outlast

Outlast's asylum setting might be hackneyed, but don't let that fool you into thinking Red Barrels' debut isn't capable of surprise. In fact, the studio, founded by former *Prince Of Persia: Sands Of Time*, *Uncharted* and *Splinter Cell* developers, has done for modern horror what Visceral did for sci-fi with *Dead Space*. Rather than riff on Alien and The Thing, however, *Outlast* taps into modern horror-movie exemplars such as The Descent and Rec.

It also owes much to *Amnesia: The Dark Descent*. *Outlast*'s world is populated by enemies against which you cannot defend yourself. This is a game of hiding, running and stealthy avoidance, and you can conceal yourself in lockers, under beds or simply slip into the shadows, hopefully avoiding detection by the asylum's grotesque, recently freed inmates.

The game begins, of course, at night, as you drive up to Mount Massive asylum, a remote Colorado institution that was shut down in 1971 amid scandal and secrecy. As investigative journalist Miles Upshur, you're following up on a tip from an inside source who reveals that the intentions of Murkoff Psychiatric Systems – which outwardly reopened the long-abandoned home in 2009 as a charitable organisation – may not be entirely honourable.

During your first few steps in the shadow of the Unreal-Engine-conjured moonlit asylum's façade, there's little to suggest that this will be anything other than a fairly standard, if undeniably good-looking, firstperson horror plod. But then a locked front door forces you to find another way in, and Red Barrels deploys the first of its surprises. Some scaffolding leads up to an open window on the first floor, and you clamber and jump your way up to it in a manner more reminiscent of *Mirror's Edge*'s Faith than, say, Gordon Freeman (although there's a wonderful *Half-Life* reference later on in the game). While seeing your hands and body is nothing new in firstperson games, it feels remarkably refreshing to have such a strong sense of physicality, and agency, in a survival horror.

This increases your connection with the game world, and allows Red Barrels to lean even harder on your eroding fortitude. The team has lifted *Amnesia*'s door trick, wherein you can click to bust the obstacle open in an instant (particularly useful if being pursued), or use the mouse to gradually crack it open for a quick peek into the next room. Rather than an abstract pointer shifting the door in front of you, here you must be up against the door, moving with its arc into the darkness.

Stand near a doorframe or corner and your hand will automatically rest against it, allowing you to lean round with a press of Q or E. Sometimes, though, for all your careful creeping, running is the only option you have left, and in another brilliant touch Red Barrels switches those keys' function to looking back over your shoulder,

Publisher Red Barrels
Developer In-house
Format PC (tested), PS4
Release Out now (PC), 2014 (PS4)

Not all of the inhabitants are intent on killing you – in fact, many are as frightened of the outbreak of violence as you



allowing you to check just how close the raving guy with the baseball bat is. The game's audio work also deserves special mention: Upshur's breath becomes more panicked as you see enemies or enter particularly dark rooms, while the rustle of your clothes and the creak of the floorboards sound perilously loud.

Thanks to your line of work, you have a video camera, handily equipped with night vision. Since much of the asylum is pretty much pitch black, the camera's lens proves essential to your progress. Using night vision quickly depletes the camera's power, though, so you'll have to scavenge for batteries along the way – usually found next to long-abandoned radios or cameras, and mostly secreted in the asylum's darkest corners. Even if your battery fully depletes you won't be left entirely blind: it retains some weak functionality, necessitating a panicked, wall-hugging search for more batteries. These moments are so nerve-shreddingly enjoyable that we can't help but wish batteries were a little less generously distributed.

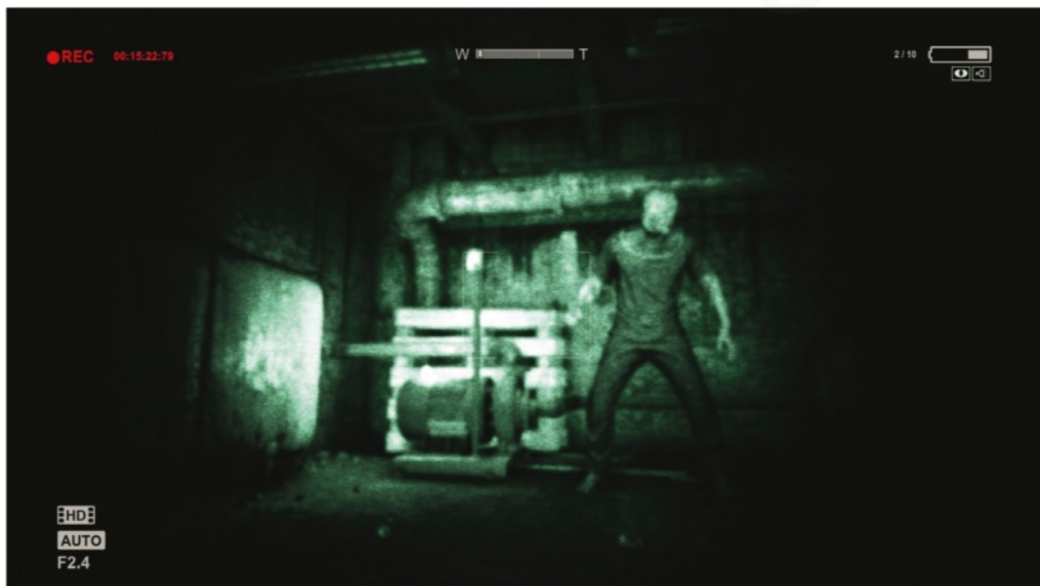
Not all of the asylum's inhabitants are intent on killing you, and in fact, many are as frightened of the outbreak of violence and associated religious fervour as you. Others still are aggressive, but pose no real threat. In most cases there's no explicit visual cue, which sets up some clever moments in which you can't be sure whether you're in danger or not.

For all its innovation, *Outlast* is content to reuse some of its tricks. On several occasions your path will be impeded by a broken pump or generator that can't be activated before other switches are found. At these points the levels open out, forcing you to navigate corridors or rooms in the dark, and usually in the presence of a patrolling madman or two. But the game is at its best when you're given space to improvise, and this, combined with its relatively short duration (the game can be completed in four to five hours) means such moments never outstay their welcome.

Red Barrels is savvy enough to switch up the pace towards the end of the game, too, playing two superbly cruel tricks on you that force you to abandon the steady, stealthy approach that has carried you through the game until that point. And there's plenty of variety along the way, with some great use of elevation and a pitch-black humour that stops the game from becoming overbearing.

And that balance is key to *Outlast*'s success. While there's rarely any let up in the tension, it always feels like you're in the hands of a developer at the top of its game, revelling in making the player uncomfortable, but never forgetting to delight at the same time. *Outlast*'s combination of stealth, platforming and horror is exceptional, the benefits of the diverse experience of its highly talented development team always in plain sight.

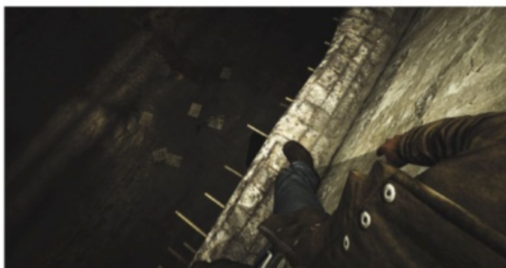
9



LEFT Night vision picks out environmental details sparingly, although the zoom function will let you find hiding places and spot enemies more easily. Knowing where they are doesn't make them any less terrifying, however.
BELOW This standoffish individual doesn't intend to do you any harm, believe it or not. Many of the asylum's inhabitants take greater umbrage with the facility's staff than you. That doesn't make it any easier to turn your back on them



RIGHT *Outlast* is more than locked doors and scares; there's a helping of platforming, too. One space sees you scaling a collapsed prison block as inmates wander below.
FAR RIGHT Batteries are mostly easy to find, their supply only dwindling when you find your progress halted for any amount of time. But night vision can cause problems, too, when you are being pursued through areas that alternate between light and dark





Killzone: Mercenary

Publisher SCEE
Developer Guerrilla Cambridge
Format Vita
Release Out now

You expect firstparty developers to lean more heavily on their host platform's featureset than those making multiplatform games, and this is no exception. Vita's touch controls are used extensively in *Mercenary*, but rarely feel crowbarred in. There is nothing as obviously forced as *Uncharted: Golden Abyss*'s brass rubbing, and the sole example of a touchscreen doing what a button does better is weapon switching, mapped to a small icon on the right of the screen.

It's not without its gimmicks, of course. There's a hacking minigame, in which you match geometric shapes into a central hexagon like a timed cyberpunk version of Trivial Pursuit. Then there's the melee attack, which was always likely to find itself on the touchscreen on a platform without clickable analogue sticks. Tap triangle when close to an enemy, draw a line in the direction dictated by an onscreen arrow and you'll trigger a brutal canned animation: a knife plunging into a cranium, eyeball, throat or testicle – and even, for some reason, an armpit – before a bloodied corpse slumps to the floor.

There's equally useful, although distinctly less bloody, implementation of touch controls in the VAN-Guard systems: special weapons dropped into the levels at specific points or purchased from Blackjack, an arms dealer whose wares can be accessed at crates dotted generously around the gameworld. The Porcupine is a shoulder-mounted rocket launcher which highlights available targets in red circles, waiting to be tapped. With Sky Fury, you do much the same, albeit from an aerial drone's grainy view and with the rockets replaced with precision lasers. Carapace deploys a movable shield in front of you; Ghost is a cloaking device; and Mantys Engine kills enemies by plunging its twin spikes into their heads, your character automatically cloaked while you move the drone using the analogue sticks.

Of all Vita's features it's the right stick that makes the strongest case for an FPS on a handheld, and while *Mercenary* may be the least mechanically fudged shooter on a portable to date, it's still far from ideal. There's not a lot of travel on these twin sticks, and while you'll quickly adjust to the need for precise aiming – expect your first half-hour to be full of diagonal movements where you wanted horizontal ones – the difficulty of making finer adjustments proves problematic, even in the long term. It's not helped by Vita's display (big for a handheld, but not for a console FPS), making even enemies in the middle distance almost impossible to see. You'll come to rely on the icon popup that confirms a kill and awards you Credits, a persistent currency across *Mercenary*'s campaign and multiplayer modes.

There's narrative justification for this economic artifice, though, and the clue's in the name. As the titular mercenary you're motivated by money, not the triumph of good over evil, and as such the campaign sees you back both the humans and the Helghast. It works on a story level, too, blurring the lines between good and evil with humanity's discovery of a virus that could wipe out one side or the other and end the war for good, providing ample justification for you taking up arms with *Killzone*'s crimson-eyed antagonists. Keeping with series tradition, voice acting is hammily perfunctory, the standard back-and-forth of gruff human space marines and the Helghast's pitch-shifted cockneys. It's told well enough, but unskippable cutscenes are ill-suited to a portable game, especially one as focused on replay value as this.

As the titular mercenary you are motivated by money, not the triumph of good over evil, and as such you back both sides



Finish the campaign and a chapter-select screen gives you immediate access to any of the game's nine missions. All can be replayed on higher difficulties for bigger payouts, but the real long game comes in the form of four class-based objectives: these might ask you to finish the level in 20 minutes, get a set number of stealth or melee kills, headshot a certain target, or free hostages who are being held in small corners of the map you're likely to have missed the first time around. Sadly it's all or nothing, and you'll rapidly become well acquainted with the Mission Failed screen. There are countless hours of replay value, but only perfectionists with a high tolerance for frustration will see them.

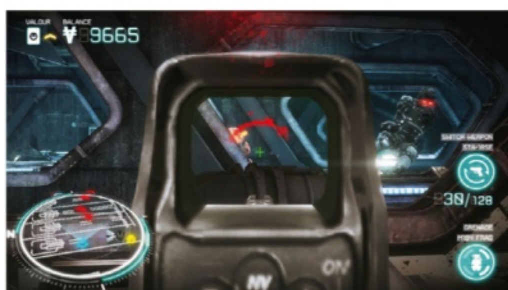
Thankfully, you can take your Credit balance into multiplayer, which boasts the usual free-for-all and team deathmatch variants and a headline gametype, Warzone, in which two teams battle for a series of shifting objectives. First you have to pick up Valor cards dropped by fallen enemies in a manner reminiscent of *Call Of Duty*'s Kill Confirmed mode. Later you'll have to hack VAN-Guard terminals using the campaign's touchscreen minigame, and melee kill opponents for intel before a standard shootout closes things out. At 25 minutes long, a Warzone match is no game of *COD*, but it's a dynamic spin on the multiplayer FPS's run-and-gun template – although your leaden turning and aiming speed tends to mean that gunfights are won by whoever spots and shoots first.

The great myth of gaming handhelds, and Sony's in particular, is that what players want most are console experiences condensed to a smaller screen, with fewer inputs. *Mercenary* feels like its big-screen cousin, it looks fantastic, it has a serviceable multiplayer, and its controls neither feel compromised by Vita's lack of secondary triggers and clickable sticks nor undermined by crowbarred touch controls. It is, in other words, a competent handheld version of *Killzone*, and those who bought a Vita on that promise will be amply satisfied. Others will squint, line up their sights on a speck in the middle distance, squeeze the trigger and hope for the popup confirming their aim was true, and wonder if this is really what handheld gaming should be.

6



LEFT Muzzle flash compounds the difficulty in getting a bead on a distant enemy. The kill-confirming text popup is a vital tool at the best of times, and especially during *Mercenary*'s more hectic battles.
BELOW Trigger a melee move on an enemy commander and instead of the instant kill, you'll interrogate him for intel before dealing the killing blow. Find all the intel in a level to unlock more Valor cards.
BOTTOM Mantys Engine is a fine stealth tool in a game that rewards staying out of sight: complete a section without being spotted and you'll be given a Credit bonus. The drone itself has low armour, though, and is quickly destroyed when seen



ABOVE Enemy AI is solid: foes will frequently flank you while their distant comrades provide covering fire. They're a little too eager to get in close – a decision born, perhaps, of the desire to showcase the Brutal Melee moves





Final Fantasy XIV: A Realm Reborn

There is a formula at work in every MMOG. This is usually thought of from the developer's perspective: the systems and structures a game uses to funnel a large number of people into a large amount of content and keep them there. The player's side of the equation is subtler: what type of person do you need to be to settle on one MMOG as opposed to another? *Final Fantasy XIV: A Realm Reborn* is one part traditional fantasy MMOG, one part *Final Fantasy* game. One part console, one part PC. To fit into its formula, you'll need to fit that pattern as well.

The original *Final Fantasy XIV* was a crippling disappointment for Square Enix, released unfinished on PC in 2010 and juddering to a halt in 2012. The game's producer resigned in shame and much of the development team was changed. *A Realm Reborn*, then, is a sequel as much as it is a relaunch: none of the game's systems has been left untouched, and all of its areas have been redeveloped. Square Enix took the failure of the game's initial iteration as an opportunity to bring the world of Eorzea to an apocalyptic and suitably melodramatic close: *A Realm Reborn* is set five years later, as Eorzea pieces itself back together with the help of a mysterious new wave of adventurers. It's probably the first time that the developer has turned out an 'amnesiac protagonist' storyline because it genuinely wants the player to forget the past.

At character creation you select a race and an initial class, and this determines the city-state that you belong to. In addition, a number of smaller decisions flesh out your character's backstory and demonstrate the game's commitment to roleplay, such as your birthday and patron deity. Your race determines some base stats that will be significant to min-maxers, and your city affiliation establishes certain aspects of the main narrative; beyond that – and to the game's credit – many of these choices can be tinkered with later on.

Switching classes is as simple as swapping out the weapon in your main hand, and after reaching level ten you can pick up as many classes as you wish. You have a distinct level for each and this acts as a way of keeping lower-level content relevant as you progress: over time, you'll likely play through each of the three starting zones with a different profession. At lower levels, a limited mixing and matching of skills provides a degree of role customisation – the sword-and-board-wielding Guardian, for example, might pick up a healing spell from the Conjuror class. Later, these combinations develop into full-blown advanced classes: a Guardian plus a Conjuror is a Paladin; a Thaumaturge plus an Archer is a Black Mage. There is a basic satisfaction in having this many boxes to tick, and so much freedom to change playstyles on the fly.

Control with a gamepad is fiddly but viable and provides *A Realm Reborn* with a novel tactility,

Publisher Square Enix
Developer In-house
Format PC (tested), PS3, PS4
Release Out now (PC, PS3), 2014 (PS4)

It's a beautifully designed world, and striking environmental lighting elevates FFXIV above what we expect from an MMOG



particularly on PC. Levelling with a pad changes the tone of the game: it feels fresher than its rote content would otherwise suggest. Mission design rarely strays beyond kill lists and fetch quests, but is lifted by the fluidity with which the player is given things to do. When you log in, you're presented with a list of things you might wish to try in your local area, and in addition to regular quests there are Fates (open-world public quests), Levemetes (timed singleplayer challenges with scaling rewards), Guildhests (instanced group versions of the same) and a decent selection of dungeons.

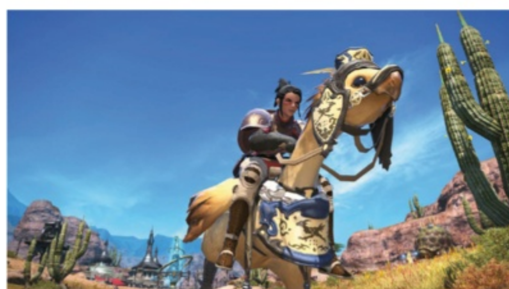
It's a beautifully designed world, despite a few rough-textured interior environments. Landscapes stand out in particular, their pushed-back draw distances creating a deceptive sense of scale. Striking environmental lighting elevates *FFXIV* above what we've come to expect from an MMOG, and the inclusion of series music and sound effects will raise a smile from a particularly devoted sector of the target audience.

A Realm Reborn adroitly checks the other boxes you might expect: Chocobo mounts, an involved crafting system, pets. The first major update to the game, due within three months of release, will add housing. The game's launch has not been entirely smooth, however: maxed-out servers required the suspension of digital sales, and the queues for logging in can make the game unplayable at peak times. Given the need for this game to succeed out of the blocks, it's disappointing that Square Enix hasn't ensured sufficient server capacity to support the predictable rush of interest at launch.

Final Fantasy XIV's shine wears off as your level increases. The responsibility that comes with group play makes pad control – which for MMOG players will always play second fiddle to mouse and keyboard – less viable, and this is likely to cause a divide in the community between PlayStation 3 and PC players. The way Square Enix has improved the presentation and accessibility of levelling content doesn't prevent *Final Fantasy XIV* from being a fundamentally conservative game at its core, and as such, its subscription fee (which limits you to a single character per server at the lowest level) is of questionable value when games like *Guild Wars 2* offer, on PC at least, a more substantial experience with no monthly payment. A lot of players will get everything that they're going to get out of *Final Fantasy XIV* in the course of their initial free month.

They won't account for everybody, however. There will always be people for whom levelling a White Mage means more than levelling a wizard, for whom the Prelude arpeggio isn't just main menu music. If that's you, and you like what the MMOG genre brings to the table, then *Final Fantasy XIV* promises to last much longer. After all, you fit the formula.

6



ABOVE Access to AI-controlled Chocobos is granted early, but you'll have to wait to ride one of your own. By way of consolation, you get to listen to an upbeat take on the Chocobo Racing theme for the duration of your journey





TOP One-off group instances – called Guildhests – allow you to quickly load into a boss fight or arena challenge from anywhere in the world. It's a great change of pace, and hopefully something that other MMOGs will learn from. ABOVE Architecture lives up to the series' imaginative high standards, particularly from a distance. Cities are viewable from multiple angles as you roam open-world zones. LEFT Dungeons play out along traditional MMOG lines – clear monster groups respond to scripted boss battles, and fulfil tanking, DPS and healer roles as needed. It's an area other games have innovated on much more substantially

Amnesia: A Machine For Pigs

A *Machine For Pigs* will prove divisive among fans of Frictional Games' much-lauded original. The Chinese Room's temporary stewardship of the series has resulted in an undoubtedly slicker experience, but one that comes at the cost of some of *The Dark Descent*'s memorable urgency. But there are as many gains here as there are losses.

The late-Victorian London setting provides a grisly, viscera-stained backdrop that is more relatable, and horrifying, than the vague medieval leanings of the original. Industrialism has enabled the construction of a cruelly efficient machine for processing livestock, but as you descend into its bowels in search of your missing twin sons, the terms 'pig', 'product' and 'the poor' become interchangeable. Dan Pinchbeck's story is dark, affecting and well written, and the voice acting is a world apart from the shaky efforts of *The Dark Descent*.

Other intended improvements are less surefooted. The Chinese Room has discarded the first game's inventory in favour of physics-based puzzles and added the ever-fashionable audio diary, and while the logic behind these decisions is sound, it's uncomfortable to see such a familiar device sneak into a series celebrated for its originality, and the benefits are largely outweighed by the continued presence of journal entries and documents that pause the game when read, rupturing the pace and sense of tension.

Despite being more self-contained, puzzles don't suffer from the absence of an inventory; concoctions are mixed and transported, and long-dormant machines brought back to life. But there's no longer any need to refill your lantern, nor collect tinderboxes to light torches – 60 years after *A Dark Descent*, lights are now electric – and this removes much of the stress of finding your way through the world. With no way to defend yourself against enemies, darkness is one of your greatest allies, but while the levels are more expansive, you rarely feel lost, or harried by the need to traverse a space you haven't yet mentally mapped. There is also no longer any need to maintain your sanity.

That's not to say *A Machine For Pigs* isn't scary: at points it will test your nerves to breaking point, and its enemies are both more unnerving and better realised than the zombified torture victims of the first game. The Chinese Room's masterful appropriation of FPS mechanics for its own brand of sparse storytelling in *Dear Esther* shared much of Frictional Games' approach, and the former's take on the latter's fiction is an undoubtedly worthwhile affair, even though many will feel restricted in what can feel less like a game and more like an interactive horror novella.

7

Publisher Frictional Games
Developer The Chinese Room
Format PC, Mac
Release Out now



TELLING PORKIES

The audio diaries scattered about *A Machine For Pigs*' world aren't the game's only allusion to *BioShock*. The snippets captured on the devices are from a wider conversation between you and a mysterious professor, who also phones you during your journey to offer guidance on finding your twins. Along with the notes and journal entries you accrue, light is gradually shone on the architect of the terrible machine in which you find yourself.

Despite your patchy memory of past events, as the founder of Mandus Co, it's obvious that you had more to do with the killing machine's creation than is initially apparent. But the how and why are harder to uncover



868-Hack

Publisher/developer Michael Brough
Format iOS
Release Out now

Michael Brough's roguelike is one of the most challenging, and smartest, games on iOS. Even by the standards of the genre, *868-Hack* is formidably tough, its 6x6 grids inducing claustrophobia as the rumbles and squawks of its ambient soundtrack conjure a sinister, oppressive atmosphere. And somehow another attempt – and another, and another – proves strangely difficult to resist.

Your objective is to pass through eight data sectors. Each area houses two siphons: collect these and you can deploy them to earn cash and energy from the surrounding squares, or to gain abilities, used by expending said resources, from data nodes. Activating these, however, releases more enemies. Viruses move two spaces for every turn you take; glitches can pass through nodes to get to you. You can zap them but each attack uses up a turn, and without judicious use of your limited resources, you'll soon be surrounded.

Simply surviving to the end is a challenge in itself, but that won't earn you a place on the leaderboards. Instead, you're graded by the total points you earn from triggering special nodes: the higher the number, the more enemies will be released. This wonderful, devious piece of design is typical of *868-Hack* as a whole; Brough's distinctive lo-fi visual signature belies a game that's been meticulously thought through. As a result, it's perhaps easier to admire than to enjoy, but those who are prepared to meet its bracing challenge may find themselves hooked.

8



Shelter

Publisher/developer Might And Delight
Format PC
Release Out now

Nature might be red in tooth and claw, but it's also a beautiful, pastel-coloured patchwork. *Shelter*'s gentle, cute looks might conform to certain indie game aesthetic expectations, but they're a trick. *Shelter* lures you in with its bloodless storybook charm before hitting you with a gut-punch reminder of just how capricious nature can be.

You're a mother badger, protecting five cubs as you journey through a forest in search of food and refuge. Your cubs usually stick close, but will occasionally be distracted by food or the noise of prowling predators. Since they're incapable of feeding themselves, you must stalk prey via some uncomplicated stealth mechanics and uproot veg, trying to ensure the morsels go the cub whose greying coat suggests is the most hungry.

Your cubs aren't the only hungry things in the forest, though. Birds of prey screech above you – and the simplistic, dash-between-the-long-grass evasion system doesn't make the shadow they cast any less scary – and wolves prowl beyond your sight. These things will snatch your cubs, just as readily as river rapids will drag them from you, or fire claim them, and after the brutal moment there's little you can do but keep walking.

It's about the journey, in short, and the inevitable losses on the way. Try to play *Shelter* as a perfectionist and you'll fail – the victim of a cruel world and occasionally clunky, unclear rules. Better to simply do your best, allow Might And Delight's fantastical art to enthral, and let nature take its course.

7



Dragon's Crown

Publisher NIS America
Developer Vanillaware
Format PS3, Vita
Release Out now (Japan/US), October 11 (EU)

The breasts get in the way. *Dragon's Crown*'s 30GG bosoms have made any discussion of the game impossible without first acknowledging that, yes, those things are preposterous. While art director George Kamitani's assertion that he exaggerates male characters' masculine characteristics to the same extent holds water, the saucy fairy and spread-legged female monk don't help combat the suggestion that *Dragon's Crown* is wantonly objectifying women.

But this is what fantasy art does, and Kamitani's style of fantasy is at least unique in a way that his game isn't. *Diablo* by way of *Final Fight*, *Dragon's Crown* is a fourplayer battle through 2D dungeons hiding loot chests and bosses with hit points in the tens of thousands.

There's depth in the combo and levelling systems but the screen is so flooded with allies – four human-controlled characters and two NPCs – that there's little more to combat than facing in the right direction and hitting with your strongest combo until something dies. Like *Diablo* it's best enjoyed in the company of other players, but it's not until hour six that the game opens up its online functions and branching levels, which adds life to its dungeons and structure to its combat.

Dragon's Crown offers a playground just large enough to justify repeat play, enough loot to make the fight worthwhile, and a toolset broad enough to allow players to express themselves, and look good – if absurdly proportioned – while they do it.

6



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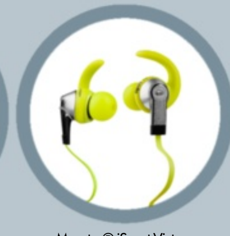

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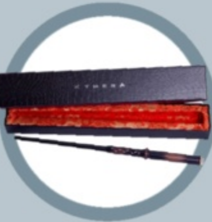

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create

Lifting the lid on the art, science and business of making games

This issue's People, Places, Things gets underway on p108, where we talk to Massimo Guarini about upcoming PS4 title *Murasaki Baby* and what he learned from his years making games in Japan. In Places on p110, we revisit *Halo*'s Blood Gulch, exploring why it remains one of the most iconic multiplayer maps of all time. For Things on p112 we catch up with former People Can Fly creative director Adrian Chmielarz to talk about the design of *Bulletstorm*'s Energy Leash and how the studio initially considered limiting its use, but decided it was more fun to just let players go wild. In our Studio Profile of The Fullbright Company on p114 we find out what's involved in creating a game and a local game scene simultaneously. The Making Of… *Kentucky Route Zero* on p118 examines the sort of atmospheric magic you can stumble upon when you leave behind familiar game mechanics and venture into the unknown. Our columnists provide some closing thoughts, with Tadhg Kelly (p110) describing the optimal zone between mechanics and artistic flourish that gives games the maximum impact. Clint Hocking (p112) ponders his lack of excitement for the next console generation, and why our concept of the smartphone gaming experience is set to change dramatically. Finally, James Leach (p114) plucks a dusty copy of *Far Cry 3* off his shelf and considers the push and pull between overt written story and gameplay in communicating a title's meaning.



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On p110 we take a return trip to Blood Gulch, to Coagulation and to the other twists on *Halo*'s bloody battleground where Red faces Blue in a vast empty canyon

People

MASSIMO GUARINI

From big in Japan to independent in Italy



Co-founder of indie studio Ovosonico, Massimo Guarini is building on design philosophies developed during his time at Grasshopper Manufacture with Goichi Suda and Shinji Mikami

The undisputed star of Sony's Gamescom press conference this year was not a mega-budget shooter or epic sci-fi fantasy, it was a game about a little girl holding a balloon and cowering away from the shadows. Afterwards in interviews, it was the game that SCE chief Andrew House kept referring to, the one everyone talked about. A game about a little girl holding a balloon, in search of her mother – and, of course, the inspired touchscreen interface behind it all. In *Murasaki Baby*, the player must hold the girl's hand and guide her through the darkness.

Parallels have been drawn with *Ico*, but the game's creator **Massimo Guarini** says the origins of the idea are more personal. "I was on a train and I saw a little girl with a balloon, holding her mother's hand. The image was so beautiful, so striking to me that my brain immediately translated it into a character on a touchscreen, with the player's hand grabbing hers." Guarini is a videogame industry veteran, despite the fact that his native country effectively had no game industry when he began his career in the mid-'90s. "I started out designing websites," he explains, "but I got the opportunity to move into games through Ubisoft; [it was] building an Italian production studio and I applied. I think I became the first game designer in Italy!"

At first he worked on Game Boy Color titles, converting *Rayman* to the platform, as well as many other franchises; later he moved to the Montreal office and contributed to the *Tom Clancy* titles as a senior designer. But he was always aiming for something else – or, more accurately, *somewhere* else. "My dream was to go to Japan," he says. "I was an otaku about anime and manga, about the culture as a whole. I sort of worked it out by learning a little bit of Japanese and applying for jobs there."

"My dream was to go to Japan. I was an otaku about anime and manga, about the culture as a whole"

His ambition was realised, and then some. Guarini's CV reached Grasshopper Manufacture, the cult studio behind *Killer7*, *No More Heroes* and *Lollipop Chainsaw*, and he was offered a job. "They said no Japanese skills would be required – but they actually were, I later found out," says Guarini. "When I moved there, I had to learn Japanese just to survive, which was a good thing. It was a dream come true: I grew up with Japanese games and cartoons, and for years I'd been attracted by their approach to game design."

Professionally, part of the allure was the escape from realism. "The big thing is that the Japanese don't try to emulate reality all the time – they construct richer, more imaginative worlds, they have a surreal way of storytelling. Japanese pop culture is heavily influenced by manga, and making comics actually comes from ancient roots; it's a tradition. Their culture is so visual… Here, we're very attached to photographic realism, we see this as a medium dependent on technology. I spent ten years at Ubisoft making realistic games. The *Tom Clancy* series was all about simulation, and after a while I got really bored with that."

And in Grasshopper's idiosyncratic director, Goichi Suda, he had the perfect manager and creative inspiration. "It was an awesome experience," Guarini enthuses. "I was totally into his vision, which is all about approaching videogames more from a pop-culture point of view. All of his games have this lo-fi digital punk attitude – and we really played up to that. He approaches design and storytelling from a surreal point of view; everything is exaggerated."

The pair had such a good working relationship that Suda effectively handed over control of *Shadows Of The Damned* to Guarini, who revelled in the responsibility.

"Grasshopper triggered something in me," he says. "It's not like I suddenly became this surreal and grotesque guy – I've always been like that! But when I was working on *Tom Clancy* games I didn't have the confidence to be disruptive. The Grasshopper experience gave me what was missing: this level of confidence, an I-don't-give-a-shit attitude that makes you expose and express yourself."

At Grasshopper, Guarini also met two other Japanese game design legends. He got on brilliantly with famed composer Akira Yamaoka, responsible for the audio design of the *Silent Hill* series. The two formed a band, Grasshopper Demanufacture, with Guarini on drums. They're still in touch now. But there was a much more challenging presence in the studio. "I had more problems with Shinji Mikami… who I respect very much," says Guarini. "He's really a tough guy, and his reputation in Japan makes him something of an untouchable rockstar. It took six months for me to gain his trust. Before that, it was really painful; every single revision, every meeting was a challenge for me. He is an extremely intelligent person, and really he was challenging me – to wake me up to their way of doing things. Once he knew I was in line with him, he completely changed."

CV

URL www.ovosonico.com

Selected softography *Shadows Of The Damned* (2011), *Way Of The Samurai 3* (2009), *Naruto: Rise Of A Ninja* (2007), *SCAR Squadra Corse Alfa Romeo* (2005), *Tom Clancy's Rainbow Six 3: Athena Sword* (2004), *Rayman Arena* (2001)



In 2011, Guarini moved back to Italy with his pregnant wife. He set up Ovosonico with Gianni Ricciardi, another ex-Ubisoft employee, to bring Grasshopper's surreal, fearless style to the west. He worked up a couple of prototypes and, via contacts accrued during his Ubisoft years, scored a meeting with Sony's VP of worldwide studios, Michael Denny. The game he pitched at that point wasn't right for Sony, but Guarini casually mentioned *Murasaki Baby*. Sony called the next day and offered to fund its development.

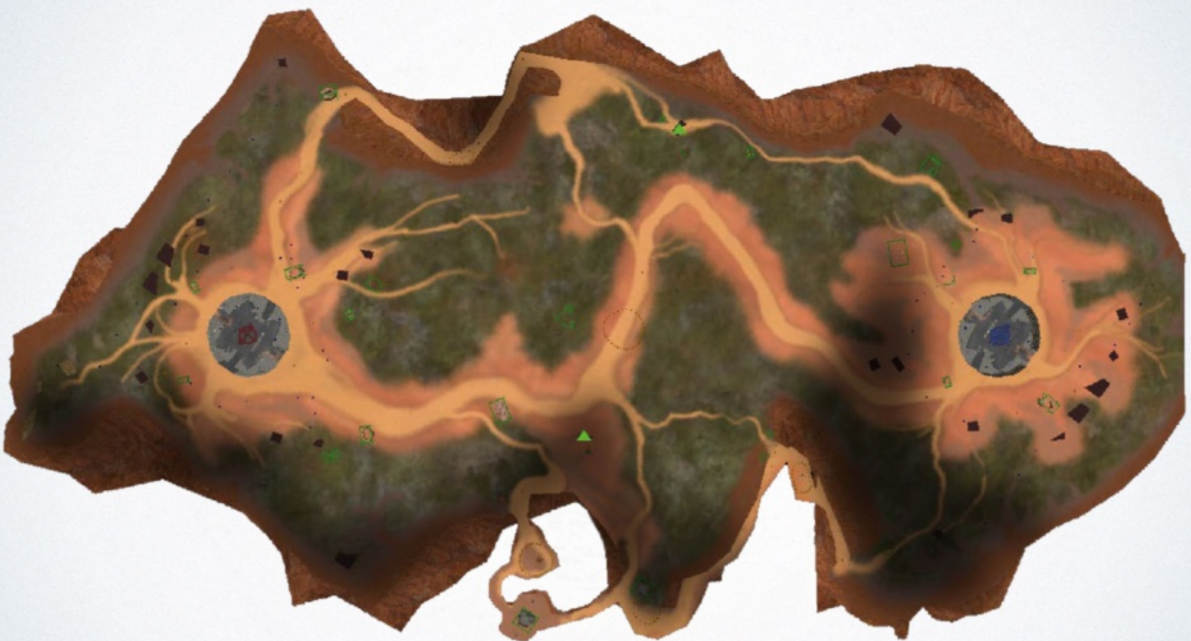
With a visual style influenced by early Tim Burton drawings, and a setting that draws from the classic Silly Symphonies cartoon Lullaby Land, *Murasaki Baby* is a dark fantasy platformer. Players must guide the lead character through a child's imaginary world, avoiding enemies and removing areas of darkness. While the front touchscreen interacts with the character, the rear pad can be used to manipulate the backgrounds, utilising interactive objects. As with many indie projects nowadays, the game is built in Unity, an engine Guarini loves for the way it liberates designers. "The tools are now there for people who don't even work in the industry – that's really important," he says. "Now people who have something to say can just grab Unity and do their stuff."

Due out in 2014, *Murasaki Baby* is a fascinating project, but it's just a taster of what Ovosonico wants to do. Guarini says his studio is platform agnostic, led by ideas not technology, but he has his eye on PlayStation 4. The ambition is to create truly emotional connections between the player and character. "We're experiencing a transformation as creators," he says. "We're old enough as an industry to know that games aren't just about the challenge; they can say something. Games like *Journey* and *Dear Esther* have proved that. We can trigger emotion, just like movies, but we can do it using our own vocabulary." ■

Places

BLOOD GULCH

The ins and outs of Halo's agenda-setting arena



Blood Gulch might not make much sense as a geographical formation, but then it was located on an artificial ringworld comprised of an endless series of microclimates, so the lack of an exit can almost be excused

From *Halo*, *Halo 2* (as Coagulation), *Halo: Reach* (as Hemorrhage)
Developer Bungie
Origin US
First release 2001


The bases are designed for interesting combat, with multiple entrances and an open ceiling ensuring you're always exposed

Over a decade ago, a relatively unknown machinima outfit produced a short video made in *Halo: Combat Evolved*. In it, two Spartans had something of an existential dilemma. "Why are we out here?" asked one. "It's just a boxed canyon in the middle of nowhere, with no way in or out." Those Spartans were the nascent stars of what would go on to be the phenomenally successful Red vs Blue. The canyon was Blood Gulch.

Every firstperson shooter has the map that defines it – a space so perfectly laid out that it captures and crystallises each game's unique potential for dynamic, engaging conflict. The asymmetrical, real-world sprawl of *GoldenEye*'s Facility was perfect for stalking opponents with one-shot pistols in Licence To Kill mode. The deathtrap central hallway in *Counter-Strike*'s Dust nonetheless exerts a gravitational tug on nearby players, with its tempting routes to both bombsites.

Even *Black Ops* and its sequel have Nuketown, a cramped, incoherent killing field whose popularity says more about its playerbase's tastes than the strengths of *Call Of Duty*'s smooth, precise gunplay. For *Halo*, however, the defining map remains Blood Gulch. Far from the tightest, most immediately thrilling space in the series – that honour should probably go to *Halo 2*'s Lockout, and its intricate overlapping sightlines – no other map at release showcased *Halo*'s nature as well, its wonderful ability to segue in and out of tense firefights and moments of ridiculous slapstick, just like this unassuming, dust-blown desert canyon.

Every first-person shooter has the map that defines it, that crystallises its potential for engaging conflict

Halo broke rules. The combination of firstperson shooting and thirdperson vehicular sections might be practically taken for granted today, but in 2001 it required a different approach to map design. Prior to *Halo*, multiplayer map design usually tended towards the boxy interiors of *GoldenEye* and *Quake* – clearly designed to human scale, and constructed from mixtures of corridors and open spaces.

Blood Gulch is a canyon, however, a vast expanse of undulating landscape and scattered pieces of natural cover with a base at either end. The valley is broadly symmetrical, as maps need to be in order to ensure balance in team-based gametypes. But as with twins, stare closely enough at the two ends of the valley and you'll be able to tell them apart. Along with subtle variations in the bumps, crests and ditches that run across the length of the map, there are more prominent tactical nuances, too. A ridge overlooks the Red Base – the Red Team can reach it nigh-on instantly, but they're also more vulnerable to sniper fire should a crafty opposing player perch there. Conversely, the Blue Team has more immediate access to a tunnel system running along the sides the map, but needs to watch for ambushes from the caves, which can disgorge a Red Team to their door. These subtle instances of lopsidedness compound the organic feeling of the map, yet they're carefully calibrated not to disrupt the balance.

The bases are where you'll find traditional FPS gunplay. Each has two entrances, an open ceiling and sloping paths to the roof. Death can come from behind, in front and above you in these cramped structures, and that naturally encourages the most crucial thing in an online game: motion, in this case a circulating movement in and out of the buildings. Players who make it to the top of the base can effect quick getaways, too, thanks to teleporters located on the roof of each structure that immediately transport you to the valley.

This is no-man's land, a vast landscape with little cover that a Spartan on foot is ill-equipped to traverse, especially if there is a sniper perched on the opposite base. The strange tension of Blood Gulch emerges from just how dangerous the majority of the map is for players not in a vehicle: this open, indefensible terrain forces players to shepherd themselves back into a base, the cave systems, or a nearby vehicle. And that means firefights are normally fought in cramped, intense conditions despite the ostensible openness of the map. And yet that landscape is perfect for hurtling across in a Warthog, the enemy team's flag strapped to your back. The open space is ideal for high-stakes sniper duels, too, or battles fought between a lone wolf with a rocket launcher and a team sitting snugly in a tank.

And that's why it never went away. *Halo 2* practically ported the map via Coagulation, a near-identical battleground that installed a pair of banshees in the bases' basements. *Halo 3*, meanwhile, had a spiritual successor in Valhalla, a more verdant, cramped arena that solved the problem of the centre of the map being so dangerous for players out of vehicles: rather than teleporters, Valhalla uses Man Cannons to fling players to the centre of the arena, where firefights will naturally ensue. Valhalla so perfectly fulfils Blood Gulch's role in the map rotation that Bungie refused to remake the latter for *Halo 3*, although with *Halo: Reach* the studio finally acquiesced.

Reach's Hemorrhage was the last time we saw Blood Gulch, identical in layout to its earliest incarnation but now wearing Valhalla's lush, green clothes. Fittingly, it was introduced in a special episode of Red vs Blue, as part of a joke that saw the characters tricked into thinking they were headed home. For those of us who had spent hours perched on the roof of those bases, aiming down a sniper's scope, it wasn't a joke at all. ■

Things

BULLETSTORM'S ENERGY LEASH

A signature weapon that broke a host of FPS rules – and worked



In a game all about guns, the Energy Leash still managed to become the iconic weapon. Fun to use, and with no limitations on its ammunition supply, the Leash is overpowered and proud of it – though People Can Fly did look at limiting its powers

From *Bulletstorm*
Developer People Can Fly
Origin Poland
Release 2011

Bulletstorm is a gutsy, brash yet intelligent firstperson shooter, combining a sniggering, juvenile sense of humour with thoughtful ideas about how to encourage, incentivise and reward creative, extravagant carnage. It's a shooter *about* shooting, so focused in its appreciation of all the many ways bullets can tear through flesh that it's easy to forget that its signature weapon – the glowing, whiplike Energy Leash – has been snatched from an entirely different genre of game.

The Energy Leash is Bayonetta's whip, it's Dante's Demon Pull and Angel Lift abilities, it's Nero's Devil Bringer arm. In thirdperson brawlers, grapple tools like these provide a snappy way to instantly negate the gap between you and your enemies, chain combos together, and look controlled and cool while doing so.

Bulletstorm has Skillshots, not combos, and a firstperson perspective doesn't lend itself to admiring your savage attack strings. Still, an FPS built around earning points for murdering NPCs in stylishly inventive ways (knocking them into the air, say, then hitting them with an explosive round to send them sailing another 50 feet) needed a more tactile verb sheet than the abilities offered by *Call Of Duty*. You can't set up the perfect Skillshot if you can't reach out and grab, can you?

The Energy Leash's two moves are the connective material that hold the Skillshot system together – as fundamental to setting up high scores and stringing together tricks as the manual was in *Tony Hawk's Pro Skater 2*. The first ability lets you snatch an enemy and tug them towards you where they'll float, temporarily suspended. The second grabs your victim and slams him to the ground, causing all nearby assailants to bounce into the sky.

Grapple tools provide a snappy way to instantly negate the gap between you and your enemies

Dozens of Skillshots require one of these steps, and others are more easily achieved using them. As well as giving *Bulletstorm*'s combat a dynamic, bouncy rhythm unlike other shooters, the Leash gives players control. Without it, the Skillshot system would force players to wait for opportune Skillshot moments to appear. With it, players carve out opportune moments of their own. In fact, the Energy Leash wound itself so tightly around the Skillshot system that when we ask *Bulletstorm*'s creative director, **Adrian Chmielarz**, which came first, he can't even remember.

"Was it first? Goddamn it, I can't recall. It's so connected to the Skillshot system that I actually cannot say," he begins. "I can say that the Skillshot system itself was introduced well after preproduction. The problem we faced with it was that you're fighting these enemies and, yeah, you'd expect them to take cover. It makes them believable, not just standing in the open. But [we wanted] players to have fun with all the Skillshots. That's hard when all you see is a couple of pixels sticking out behind cover. You can do the stop-and-pop gameplay. But that's it."



The secondary fire can knock half a dozen enemies into the air at once, giving you the time to set up more advanced skillshots

The Leash was the perfect solution. It meant that *Bulletstorm*'s enemies could be as cowardly as they like and still discover they had nowhere to hide. Tellingly, in the finished game the brutes that charge straight at you pose a greater threat than those that just duck behind cover. As useful as the Leash is, however, and as much as it resolves *Bulletstorm*'s potential design pitfalls, People Can Fly's novel weapon seemed sure to raise problems of its own. Not least because the studio had handed players a tool more useful, versatile and powerful than anything else in the game – and offered unlimited uses for its standard attack.

"It was very counterintuitive to us to offer such a powerful weapon, that can basically grab every single enemy in the game and expose them. To give that to the player, for free, with no limits – during testing we were like, 'Dude, no, it's too powerful, the range is too high. I can just abuse it!' We tried to stop it, actually. We were going to overheat the leash if you were using it too often. We were going to have munitions. But we realised that when it was unlimited, the game was just an insane amount of fun. On the surface completely wrong, like unlimited ammo for a gun. But it worked!"

The Leash works because *Bulletstorm* is, frankly, an easy game, but one in which players effectively set their own difficulty level. The challenge here isn't surviving, it's utilising the Leash to ratchet up hundreds of points via inventive Skillshot combinations. Coming out of an encounter unscathed doesn't feel like victory; it feels like the bare minimum expected of you. Still, this poses a question of its own. Without Skillshots the Leash is merely an overpowered weapon. But once they're there, how do you weave such an overt points mechanic into the fiction of the game? Questions relating to immersion and ludonarrative dissonance are important to Chmielarz.

"Sometimes I think we made a mistake," he says, "trying to incorporate the Skillshot system into the game, trying to make sure the Leash and Skillshots were part of the story. We had this story, and we had this great idea, and we knew the game was better because of it. But it made the story a little bit convoluted. We had a cool, simple story, and suddenly there was another layer."

For us, part of the Energy Leash's guilt-free thrill can be found in the way the surrounding story and upgrade systems justify its use as a tool of cruel and unusual punishment. We've played plenty of games that ask us to kill things – but few that invite us to have quite so much fun doing so. ■

STUDIO PROFILE

The Fullbright Company

How a former designer on the BioShock series moved to Portland to launch a game – and hopefully a scene



Steve Gaynor (centre) always wanted to make videogames in Portland. With Johnnemann Nordhagen and Karla Zimonja, he founded The Fullbright Company in the basement of the Portland house they now share

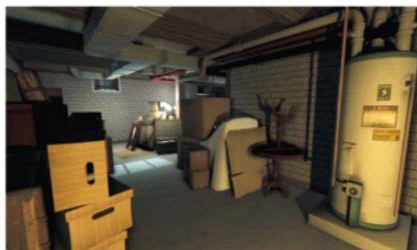
Nobody makes videogames in Portland, Oregon. Knowing Portland, that seems almost inexplicable: the popular stereotype of the liberal, artistic city is that it embraces any and all kinds of creative enterprise, from music and filmmaking to the weird and hyper-specific, like bagpipe-playing unicyclists and vegan tattoo parlours. But if you want to make videogames for a living, Portland is not the city for you.

So thought **Steve Gaynor**, who went to college there from 2004 to 2005. Gaynor wanted to work in game development, but there were no studios or publishers in Portland, nor did he have the experience to strike out on his own. After graduation, he moved south to the San Francisco Bay Area, a technology and videogame industry epicentre. The decision paid off. In 2008, he was among the first people hired by 2K Marin to design levels for the sequel to *BioShock*, the landmark shooter designed by Ken Levine and Boston-based Irrational Games, whose body of work Gaynor credits as a major inspiration. After *BioShock 2*, Gaynor was made lead designer of *Minerva's Den* – a short, standalone *BioShock* game released as DLC.

On the strength of *Minerva's Den*, Gaynor was offered a level design job with Irrational, where Levine was working on his own *BioShock* follow-up, the massively ambitious *BioShock Infinite*. At the end of 2010, Gaynor moved to Cambridge, Massachusetts to join the team.

"*Infinite* was a really cool project," Gaynor says, "and a really ambitious project, but it was also a big, giant, enormous production, that was just super huge – bigger than anybody could really wrap their head around. When you're working on a project that big, and when you're working with 150 other people…" He pauses.

"You can only really be responsible for the one little piece of the project you've been assigned. You can kind of care about the whole game, if you want to, but you only get to have any impact on the thing that is your little piece of the game. And coming from *Minerva's Den*, where it was 12 full-time content developers on that project, and a much smaller scope of work – a project where everybody could be totally invested in every part of it, where you could see every bit of it together – going from that kind of intimate development experience to *Infinite* was… in a lot of ways a step backwards, in the ways that I cared about."



Gone Home **was a dramatically smaller production than the one Steve Gaynor had worked on previously, *BioShock Infinite***

With another year left in *Infinite*'s development, Gaynor left Irrational. *Infinite* was neither the project for him, he knew, nor was Cambridge the city. "It's the biggest, most prestigious college town in the country," Gaynor says of the home of Harvard and MIT, "but it's still a college town. I'd spent enough of my life living in college towns, surrounded by college students." There was only one place Gaynor really wanted to live. He'd lived in Portland before, his wife was from there, they had married there, and many of their friends and family lived in the area. "We knew it was where we wanted to end up, so we weren't going to put it off any more," he says. "We didn't want to keep chasing jobs around the country. [We] wanted to be back in Portland."

"I knew that If I wanted to keep making games, it would have to be something I started on my own"

In the seven years since Gaynor had lived in Portland, the city hadn't developed *much* more of a videogame industry. "There were a fair amount of working Portland game developers," he says – mainly in outsourcing, educational and mobile development – "but it didn't feel like there was a super-solid framework for the people who were doing that work here.

"If I wanted to keep making games, it would have to be something that I got started on my own – whether it was contracting stuff, which I did a very small amount of, or starting an indie studio." He reached out to two of his *Minerva's Den* teammates: programmer Johnnemann Nordhagen and artist and researcher **Karla Zimonja**. Both still working at 2K Marin, they agreed to move to Portland to found a new studio with Gaynor.

The Fullbright Company, as they named it, decided not to seek outside funding. This would keep the studio independent, and the business side relatively simple, but it also meant the team would be living off their savings until they released a game. To save money, they moved in together, renting a house in the northeast of the city and setting up office in the basement. "We're really lucky to be in it," Gaynor says, "because when you go out as four adults and want to rent a house together and none of you has a job, that's hard." The house they found, coincidentally, was owned by a game developer whose Portland studio had just closed. "When we showed up, we were like, 'We want to start an indie game studio in your basement.' I think that's pretty much the only reason we [got the] house."



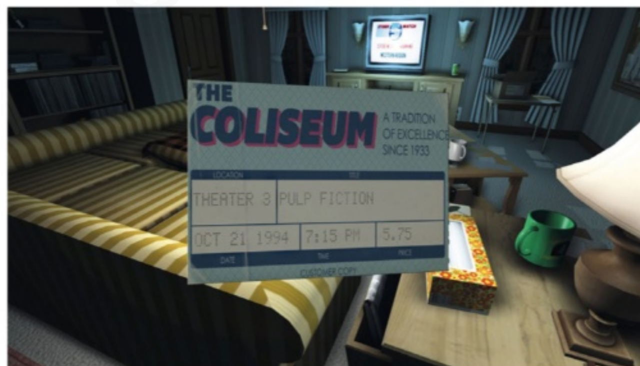
Founded 2012
Employees 4
Key staff Steve Gaynor, Johnnemann Nordhagen, Karla Zimonja (co-founders)
URL www.thefullbrightcompany.com
Selected softography *Gone Home*

Gaynor pitched a few ideas for a game that would reflect the team's design strengths while being achievable within their financial constraints. "It didn't take too long for us to get to the point of saying, 'What if it was just you and no other people, no other characters, you in a single environment and you can explore and find stuff in the environment to reconstruct the story of what happened there, and that's the whole game? That's the core of the experience, that's the entire experience, as opposed to it being the sideshow on top of the shooter game'."

Fullbright's debut would be *Gone Home*, a 'story exploration' videogame that casts players in the role of a young woman returning from a year abroad to her family's home (in Portland, naturally). The house is abandoned and, through exploration, players piece together the reasons why. The story centres on the younger daughter and her sexual coming-of-age; thematically, it's a far cry from *BioShock*'s stories of supermen who fight gene-splicing monsters by firing bees and crows from their hands.

With development on the game underway, Gaynor settled back into Portland life. "[Portland] has a very independent spirit – people are supported in doing the things they want to do here. People who are doing stuff here are connected to the community and are kind of iconoclastic, so it's a really great environment for people who want to do something out of the ordinary. Part of that is because the cost of living is really low, compared with Seattle or San Francisco. In Seattle there's Microsoft and in San





Gaynor expects the Fullbright Company's titles, beginning with ***Gone Home***, to follow in the footsteps of games like ***Deus Ex, Thief*** and ***System Shock***: complex and densely interactive virtual environments that trust the player to be curious and figure out how the world works

Francisco there's Apple and Google, and these companies can employ enormous numbers of people that they can pay enormous amounts of money, so the cost of living goes way up. But in Portland we don't have any of that. Nobody has any money." He laughs. "It's nice."

Being part of a small, independent team meant getting involved in more aspects of commercial game development than the team was used to. For example, with *Gone Home*'s mid-'90s Portland setting, it was important to the team to license appropriate music for the soundtrack – riot grrrl bands of the period like Bikini Kill and Heavens To Betsy. But without a legal department to assist them with rights and clearances – as they'd had on the *BioShock* series – Gaynor spent hours on the phone with labels and licensing agencies, trying to persuade them not only to work within the studio's limited budget, but that the game itself was artistically worthwhile. The artists themselves had to be convinced of the latter, which is how Zimonja found herself making a personal entreaty to Kathleen Hanna of Bikini Kill, touting *Gone Home*'s feminist themes, and sending Sleater-Kinney's Corin Tucker an alpha of the game for her evaluation.

"My ambition is to establish a games industry in Portland – a sustainable games ecosystem"

Tucker, at least, signed off on the usage. To showcase *Gone Home*'s selection of licensed riot grrrl songs, Fullbright released a soundtrack trailer for the game. Soon after, the organiser of Grrrl Front Fest, a local riot grrrl festival, emailed Gaynor to say she'd seen the trailer, had heard that Fullbright was local, and wondered if the team wanted to show *Gone Home* at their festival. "We were like, yeah! We would totally show our game at this riot grrrl fest that's sponsored by Planned Parenthood," Gaynor says. "[A] totally weird place to show a videogame, generally."

The day of the festival, Fullbright brought a computer to Grrrl Front Fest, which was held in a bar, and set up in the back room. "We had our game in the corner and people would be like, 'What? What is this?'" says Karla Zimonja. "[But] we had a reasonable amount of people playing. We had a couple of the bands… five 17- or 18-year-old girls, they all crowded around the monitor, and one of them was driving and the others were yelling, 'Go in there!' 'No! There's going to be a ghost!' and ordering her around and yelling; they were all so excited about it."

The singer of one of the bands returned to *Gone Home* in between sets, and eventually played through the whole thing. "What we [had] wanted to do for a long time," says Gaynor, "was find a local band that was making music… and have the music in the game as this fictional garage band. [That singer told us] 'Yeah, I like this game!' And we were like, 'Can we [use] your music in it?' 'Yeah!'"

Although Portland might have lacked a specific game development infrastructure, there was an abundance of general creative infrastructure and support in place – and as development on *Gone Home* progressed, the team discovered ways to make that work for them.

"There were other situations," says Gaynor, "where we needed to get buttons made, and T-shirts made, and we went online, searched for 'buttons' and got some lapel pins made with [our] logo on them. They were fine, but it took a little while and the colours weren't great, and we found out after handing them out that they fell apart easily. We were like, why the hell did we use some web service for that? There have to be so many people in Portland that would make buttons for us. And we could go to them and take the art to them, get a sample made and make sure that they were actually high quality."

That, Gaynor says, was a turning point for The Fullbright Company. There was, of course, a person in Portland who would make badges for them: a local woman with a hefty zine collection who pressed them by hand. The team found a voice talent agency in the basement of a teashop. The game's basic sound effects were recorded in a local furniture store. "That kind of stuff has really worked out for us: [working] with people that are here in town, that we can meet in person." As Fullbright embraced its home city, it went international. *Gone Home* appeared at game shows in the UK and at the Game Developers Conference in San Francisco; the latter appearance led to a lead story on The New York Times website. The studio hired its first new employee, 3D artist Kate Craig. And in August, 20 months after Gaynor returned to Portland, *Gone Home* was released.

"I'm really glad we've been able to make this," Gaynor says. "It's cool being part of a big commercial project that millions and millions and millions of people are going to play… [but] *Gone Home* was a thing that never would have existed if the three of us didn't decide to make a change and commit to doing something on our own. I'm really proud of the fact that we brought something into existence that never would have happened if it weren't for us."

The Fullbright Company will remain in Portland. But just *being* in Portland, Gaynor hopes, is only the beginning of the story. "My biggest ambition is to establish a games industry in Portland. To establish a sustainable ecosystem of people that are making games and are self-sufficient at it. That's the way that these things go, traditionally, if you look at game development scenes in different cities. If you look at Austin, Origin was there, and people were brought to Austin for Origin and then split off to found their own things. I hope I've gone out and gathered up enough that I can bring enough back here to get a fire started that will sustain itself in the long term."

Zimonja tells a story about a friend of the team to whom they gave a *Gone Home* T-shirt. That friend was wearing the T-shirt in downtown Portland one day, when a stranger ran up to him and exclaimed, "Oh my god! Are you Steve?!"

"That wouldn't happen anywhere else!" Zimonja says. "That's preposterous." ■

Q&A



Karla Zimonja
Co-founder,
The Fullbright Company

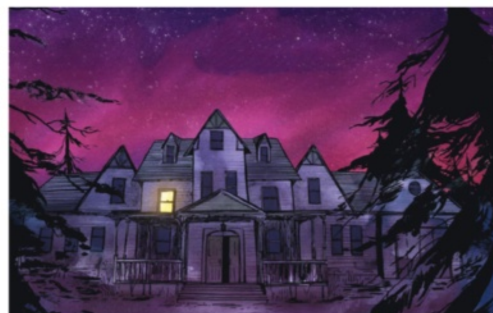
The Fullbright Company co-founder talks about adjusting to the culture of Portland, and the potential for a fully fledged game development scene to emerge in the city.

What's it like to make games in a city that doesn't have the infrastructure for it yet?
So far it hasn't really had an impact on us, except in the sense that… I'm from Boston and there was a reasonable amount of game dev in Boston: there are meet-ups and stuff. And I lived in San Francisco, and there's obviously a lot of game development there. I guess the thing that's missing here is, "Hey, neighbouring companies, let's all go out and get beers." It's kind of hard to hang out with other companies when there are very few.

Steve has said that if the game is successful, his ambition is to start a sustainable indie game industry in Portland.
It would be good to have others to hang out with and share ideas, especially once we're done with this project and actually are thinking about our next one. It'd be really cool to bounce things off people. And it would be really cool to be the weird founders of a more viable game scene. There's no reason there shouldn't be game development here. It's cheap, there are lots of universities, there's smart people and everything – it just seems very silly that we don't have that. Yeah, it would be nice to have more of a community now that I think about it.

Has working in Portland made you look for alternative ways to produce a game?
Totally. That's absolutely the case. That's the other smart thing about having a game dev scene here: it has a totally different cultural backdrop to, say, San Francisco, where it has been technological forever; basically Portland has been cultural forever. The idea of some of that [culture] permeating into a local game scene seems like a pretty boss thing. [Portland] seems like a really good bedrock to have… not the same old games coming out of. It seems like that should work. Everyone seemed into [Gone Home] at the riot grrrl festival, and you wouldn't have necessarily thought that would match up super perfectly, but it totally did.

Have you given much thought yet to what you might do after this game?
We've chatted about it, [but] we haven't settled on anything concrete yet. We have some of our major mechanics that we want to continue to explore. Just the whole idea of, like, it's a world, [players] get to pick up this object and examine this object, and it's in-world and very immediate and firstperson. That kind of stuff probably will still be in our later games because we know how to do it and we like explicating narrative with in-world objects. [It will] probably have some significant narrative content. I would be super surprised if we did not build on the stuff that we know how to do. It's not going to be exactly the same, obviously… I mean, I hope!





ABOVE **The game was first shown at a local riot grrrl festival in Portland.** CENTRE **Illustrator Emily Carroll provided art for *Gone Home*'s title screen**

THE MAKING OF…

Kentucky Route Zero

How a Chicago micro studio looked to literature, theatre and interactive fiction to redefine the point-and-click adventure



Kentucky Route Zero's nocturnal, Southern environments are full of mystery and menace. It's a point-and-click mood poem that owes more to William Faulkner and Studs Terkel than the conventions of LucasArts

Format PC, Mac
Publisher/developer Cardboard Computer
Origin US
Release January 2013 (Act One), May (Act Two)

Point-and-click interface? Check. Dialogue options? Check. Decision-driven narrative? Check. You'd be forgiven for thinking Cardboard Computer's *Kentucky Route Zero* might be kissing cousins with *The Walking Dead*. Both are interactive fictions designed to let players choose a path through their stories. Both are set in the American South. And both are episodic releases. But mention Telltale's best-selling, award-winning mainstream zombie hit to Cardboard Computer and the reaction is a little frosty.

"The moral decisions, the need to be strategic: it's at the other end of the spectrum to what we're doing in *Kentucky Route Zero*," says **Tamas Kemenczy**, who handles art and visuals at the two-man Chicago micro studio. His partner, **Jake Elliott**, who covers programming, design and writing, agrees: "The 'big choices' thing – do you want to save this child or this adult? – is not very interesting to me personally in the context of *The Walking Dead*."

Pitched as "a magical-realist adventure game about a secret highway in the caves beneath Kentucky, and the mysterious folks who travel it", *Kentucky Route Zero* is a refreshingly avant-garde take on the point-and-click adventure genre. Devoid of logic puzzles, strategy and Big Decisions™, it's true that it actually has less in common with Telltale's zombie opus than one might initially think. In fact, it might be a mistake to even put it in the same genre.

"I'm a big fan of point-and-click adventure games," writes disgruntled player 0macfrank0 on Steam's community forums. "*KRZ* is not a game. It's an interactive short story. A very short and thin short story indeed. Which I didn't know before I bought it and now I feel ripped off." Gamer expectation – especially when coupled with that other troublesome 'e', entitlement – can be a powerful force. Challenge it too often and you'll end up facing a backlash. For Cardboard Computer, though, *Kentucky Route Zero*'s challenge to mainstream expectations was accidental, not planned. "It wasn't something we started doing as a provocation," Elliott explains. "We weren't trying to throw people off."

Instead, he believes it comes down to a clash of two different worlds: indie gamemakers from an art background, inspired by interactive fiction, and a mainstream audience primed for a more conventional approach. "This game has been more successful in reaching a larger audience than a lot of interactive fiction has. So that puts it into this other cultural sphere where it might look like a really weird thing. Where we're coming from, it's not so strange."



Gas station Equus Oils is *KRZ*'s first location, and its surreal appearance is the first hint of the game's otherworldliness

Cardboard Computer traces its roots back to Chicago's new-media art scene. Elliott and Kemenczy met as undergraduates at the School of the Art Institute of Chicago in the early 2000s. Interested in interactive media art, they collaborated on a series of installations with Jon Cates. Among them was *Sidequest!* in 2009, a "classic cyberpsychedelic text adventure" inspired by the work of pioneering programmer and caver Will Crowther. Back in 1976, Crowther wrote *Colossal Cave Adventure* to run on a PDP-10 mainframe. The game was inspired by his spelunking experiences in Kentucky's Mammoth Caves. Inviting players into a dark and labyrinthine collection of "twisty little passages, all alike", *Colossal Cave Adventure* became the granddaddy of computer-based interactive fiction.

> It's a refreshingly avant-garde take on the point-and-click adventure, devoid of puzzles and strategy

Elliott had played *CCA* as a kid, when his dad was at college, on a dial-up terminal. "I was really small and my dad was helping me play it, because it's really hard. I couldn't even figure out how to quit! It wouldn't recognise any quit commands, so I started trying to kill myself to get myself out of the game. My dad suggested that I try eating the lamp. I typed in 'EAT LAMP' and the computer just totally chastised me and said, 'Don't be ridiculous!' I was so embarrassed, being scolded by this computer."

Although the sting of the rebuke faded, Elliott's interest in interactive fiction didn't. That early brush with branching narrative sowed the seeds for what, decades later, would become *Kentucky Route Zero*. After working together on *Sidequest!*, Elliott and Kemenczy decided to collaborate again in October 2010.

This time it wouldn't be an art project but a marketable game. It wouldn't just riff on *Colossal Cave Adventure* but also the real-life cave system Crowther explored, with a story about a secret highway hidden in Kentucky's caves. But more than that, it would explore the culture of Kentucky – the site of the first interactive text adventure. When it first appeared on Kickstarter in January 2011, *Kentucky Route Zero* was pitched as a side-scrolling platformer. The original video pitch shows a more conventional game than the one that would eventually be released: Conway, a giant of a man, wanders through moonlit Kentucky backdrops carrying a child on his back and solving puzzles.

"We had this idea that [his] companions, the friends, kind of acted like power-ups – you'd equip two of them and then use them to get through puzzles," says Elliott. "But it sort of fell away." As development progressed, what started as a side-scrolling platform game was transformed, stripped of all strategising until all that was left was its dialogue trees and nocturnal, ghostly atmosphere. "It was pretty gradual. We wanted you to be able to control the platforming with the mouse, so you wouldn't have to do careful jump timing. You could just click and you would jump across a gap. We didn't want it to be challenge-orientated. So, as we fleshed out that movement mechanic with the mouse, it gradually evolved into a point-and-click adventure structure."

The first prototype was an expansive cave system featuring lots of climbing and jumping. But while iterating on the art style, the spaces began to become smaller, more intimate and theatrical. "There was less space to cover and the game became less about exploring – [at least] in the sense of wandering through a maze and finding dead ends," Kemenczy says. To underline the shift away from platforming, Conway was transformed from the muscled giant of the early iteration into a puny, more abstract figure. "We actually break Conway's leg almost immediately [in Act One]," laughs Elliott, noting that the original animations still exist in the game under the hood. "It's not like he's going to be able to do any jumping."

Instead of exploring caves, *Kentucky Route Zero* spelunks into an emotional "maze of twisty little passages, all alike". It's a game about interior space, old souls and lost souls – Kentuckians struggling through an economic downturn, saddled with debts. Conway, the hero, is a delivery driver lost late at night on an errand to drop some antique furniture off in the Kentucky backwoods. Stopping at a gas station to ask

for directions, he finds himself embarking on an unlikely quest involving abandoned mines, giant eagles and a magical underground interstate known as Route 0.

The atmosphere evokes the blue-collar oral histories of Studs Terkel and the Southern Gothic of Flannery O'Connor and William Faulkner. As Conway tries to find his way to the elusive 5 Dogwood Drive, the conversations you have immerse you in the supporting cast's histories and stories: Joseph, a blind gas station attendant with a love of poetry; Lula Chamberlain, an installation artist suffering from rejection and working a pen-pushing desk job; Shannon, who fixes TVs and whose family is deep in debt. It's a drama that is told through dialogue, the player sometimes switching between different characters like Faulkner's impressionistic shifts of perspective. As the conversation options play out, the sense is that every character is an actor and the dynamic nocturnal environments are a theatre stage that twists and shifts to accommodate their moods.

Kemenczy's abstract and ethereal low-poly art, which looks back to '90s action adventure *Another World*, plays with lighting and perspective to create backdrops that feel inherently theatrical. "They're spaces you explore emotionally and they're really streamlined to show only the really important props and aspects to the frame and the conversations between the characters," *Kentucky Route Zero*'s artist explains.

He cites Obie Award-winning Broadway set designer Beowulf Boritt, whose credits include Rock Of Ages and a version of Shakespeare's Two Gentlemen of Verona set in Rat Pack era Las Vegas, as a big influence. In Rock Of Ages, Boritt's acclaimed single set combines several locations simultaneously as the neon-lit Sunset Strip is transformed into the interior of fictional Sunset Boulevard dive The Bourbon Room. "We looked at how Boritt simplifies and merges really complex spaces into one set," Kemenczy explains. "The way he bleeds interiors and exteriors together architecturally is something that we're drawing a lot of inspiration from."

If the game environments are stages, is the player an actor? Elliott certainly thinks so, although he stresses it's a performance that emerges through mood and dialogue rather than action. "In a lot of games you're more like a stuntman than an actor," he says. "You watch a cutscene where characters talk about their feelings or whatever. Then you jump in and [play] the fight scene and then jump back out again. In *Kentucky Route Zero* we were looking at theatre and the idea of letting the

Q&A



Jake Elliott
Programmer/writer/designer

Cardboard Computer's writer, coder and designer on why Southerners have their own rules.

You're based in Chicago, so why Kentucky?
My girlfriend's family is from Kentucky and I go there pretty often to visit them. The culture has always been very important to me... and the music: bluegrass and also experimental rock from Louisville. And, as the site of the first adventure game, Kentucky is part of a tradition. It's also a really varied state. There are a lot of different landscapes in Kentucky, some really flat parts and then the mountains.

Everyone in the game wants to chat. Is that a romantic version of Southern hospitality?
There's definitely a romantic view of the South. But that is a fair characterisation – the idea of people stopping to talk a bit more than they do in the North. The way people talk to each other in *Kentucky Route Zero* is a reaction to games. A lot of videogame stories are about people being awful to one another all the time. You can't trust anyone and they're a really wretched portrayal of human interaction. Then someone feels betrayed, and the mark of a really 'mature' story is that you find out that both sides are evil, or something. I think we're trying to counter that and look at what other parts of human interaction are not so wretched and gory.

player sort of inflect the character. It uses a conversation mechanic familiar from RPGs and point-and-click adventures. But it prioritises emotional sensitivity and emotional or poetic decisionmaking rather than research – the priority of most RPG dialogue – or logic-puzzling – the priority of most classical adventure dialogue."

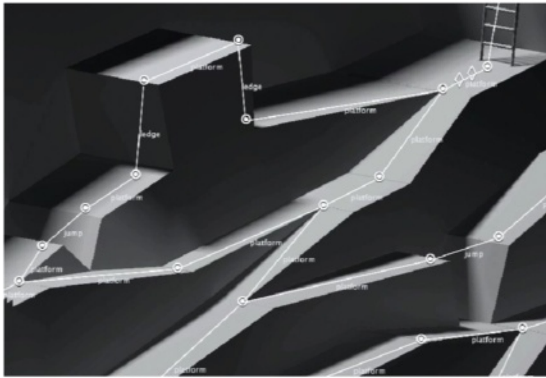
Trivial decisions – like choosing whether to call your hat-wearing dog Blue or Homer – don't make the narrative branch in different directions. Instead, they flavour the story and how the player sees Conway himself. Dialogue and locations change depending on the player's response but there are no dramatic shifts or big moral decisions. "You have two choices and they might not be narratively that different," Elliott says, "but they're sort of emotionally different. Or, they give you two different reasons for doing something and you pick why the character did it."

Working out how to prod and poke players' emotions involves more than just a series of binary values, though. "We're still figuring it out," Elliot says of Cardboard Computer's approach to giving players emotional feedback. "We only have two episodes out now, and the choices and inflections are starting to pile up. We're about halfway [through] trying to figure out new ways of working with those choices and how to…" he pauses, uncertain. "Have those choices coalesce," Kemenczy says, finishing his partner's sentence for him. "Yeah," Elliott agrees. "It needs more figuring out. We talk about it quite a lot."

The touchstone that Cardboard Computer returns to again and again is interactive fiction. *Colossal Cave Adventure* spawned a genre that has survived the exponential growth in processing power that has happened since 1976. In fact, the genre has been enjoying something of a renaissance thanks to Twine, the HTML text game generator that lets anyone make interactive fiction with just a few clicks of the mouse. "Twine games are what Tamas and I follow the most closely from videogames," Elliott says. "Generally a lot of Twine games privilege personal storytelling above any mechanical conceit. There's [often] only ever one option. You just sort of click through it and it's basically like a poem or something. We're not working in a vacuum in that regard."

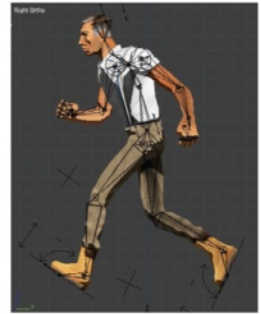
Since its release in January, *Kentucky Route Zero* has given Cardboard Computer its biggest audience to date – although it's reticent about sharing exact sales figures – and won it an award for Excellence in Visual Art at the 15th annual Independent Games Festival in March. Its success – much like that of *Dear Esther* last year – demonstrates the effects that digital distribution and new funding models have had on the gaming landscape. Games that don't rely on conventional run-shoot-puzzle-jump interactions are now able to reach a much broader audience. It's an ongoing revolution that has the power to change player tastes, too, as the friction between the margins and mainstream bites.

"We have seen people on forums talk through their change in perspective from playing the game," Elliott says. "Some people react with hostility, for sure. There was one guy who left a comment on a forum that I read. He was feeling very betrayed because *Kentucky Route Zero* was representing itself as a videogame, but it wasn't really a videogame." A little later, the poster left another message on the thread. "He'd played the second episode and came back to follow up," the designer continues. "He said, 'Well, since I had my expectation changed this time, I kind of enjoyed it a lot more." Elliott laughs, proudly. "So, I guess, the game's doing something to him." ■





Kickstarter rewards included this papercraft postcard of the Lysette's Antiques delivery van. The vehicle's retro yet timeless look is typical of the game's coyness about when it's actually set



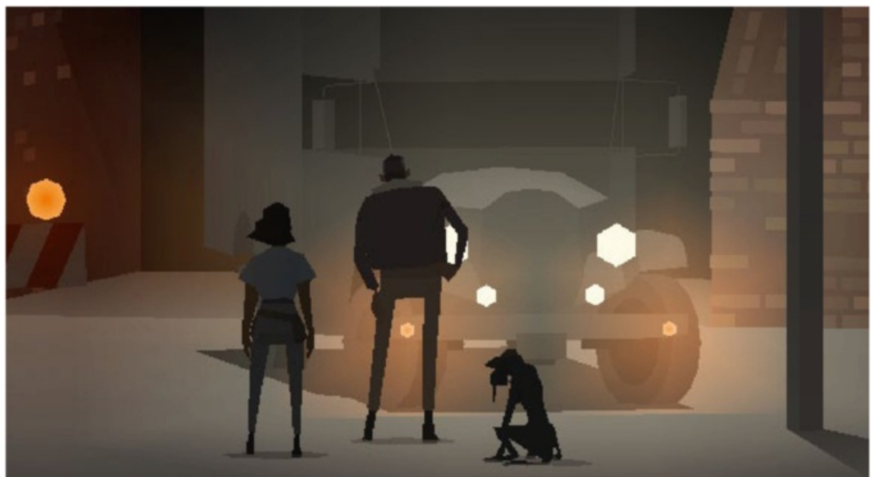
A close-up of the original Conway model in Blender. The character was later redesigned from the ground up



Dogged dialogue

A black dog chases a white rabbit through a sparse, nocturnal landscape dominated by the shadowy remains of an ancient ruin. The sound of Chopin's Prelude #2 in A Minor comes from an unattended piano in the middle of the surreal wasteland. Released in September 2011, while Elliott and Kemenczy were in development on *Kentucky Route Zero*, *Ruins* is a desolate story of failed relationships, memories and music. Catching rabbits triggers a dialogue between the dog and its offscreen owner, the conversation's emotional arc bending in response to the player's replies.

"It was explicitly a bit of a test for some of the dialogue stuff [in *Kentucky*]," says Elliott of the way this pensive art game focuses on eliciting emotional feedback from its players. Combined with the freeware game's melancholy tone, ghostly atmosphere and cute canine character (sadly not wearing a hat), it's easy to join the dots between the two projects.



KRZ **hero Conway evolved from a broad-shouldered giant carrying companions on his back into a more broken, limp protagonist**

What Games Are



TADHG KELLY

The optimal zone

Former Microsoft chief experience officer J Allard once enthused about playing *Halo* on your phone. The notion was one of those mega-ecosystem things that Microsoft likes to dream up: play on your Xbox, go out into the world with your Zune and play some more. Maybe level up your Chief on the road so that when you get home, you've got new weapon choices. Such ideas are ambitious, but tend to be impractical.

Games are often said to consist of loops. For some this means games are recursive (small loops nested to build bigger loops), but I tend to think of loops as 'mechanics' and the bigger outcomes as 'dynamics'. They have a different shape. The outcome of a mechanic tends to be predicable, but the net build-up of many mechanics leads to something much more interesting: dynamic, disordered, slightly mad chaos.

As I wrote in this column last year, games are inherently chaotic in the mathematical sense. They're weird and beautiful, fascinating, un-yet-semi-predictable, and the overall excitement of playing them lives somewhere between order and disorder. That's what I mean when I define fun as "the joy of winning while mastering fair game dynamics". But what does any of this have to do with J Allard? Allard was talking about mixing several game dynamics together (mobile RPG, firstperson shooter, etc), and that usually leads to big headaches. Breaks emerge. Players either discover easy exploits that remove the challenge of the game, or the game has so many inputs and outputs that it becomes incomprehensible.

The same is true of many singleplayer games. While there are numerous enormous videogames out there, the successful ones tend to have one core dynamic to which the entire game defaults. You, as the player, tend to stay in control of a certain kind of doll that performs a certain kind of task, and everything in the game's universe revolves around that task. That's how the game manages to convey its enormity in a way that makes sense. There are some games that maintain a couple of dynamics (it's rarely successfully more than two), but they do so by bridging them.

The *Grand Theft Auto* games, for example, essentially contain a driving dynamic that bridges to a thirdperson dynamic. It does this by making getting into and out of a car a moment, a pause that resets your frame of reference. This dynamic idea seems to make an argument for simplicity, elegance and naturalism in game design, yet the purely abstract or elegant game tends not to work – it falls flat, lacking something beyond an uncertain point. It plateaus for the player, who reaches her maximum mastery, and becomes rote.



Art matters. Fiction matters. A sense of place and motion matter. Yet so do fun, accessibility and mastery

Conversely, some overly complex games attract legions of fans despite their frailty. Maybe they have solid gameplay at their core but lots of ropey mini-games. Maybe their core gameplay isn't that fascinating, yet the fiction of the experience is powerful. Roleplaying games in particular tend to be mechanically flaky and easy to master, yet people love them. The problem with only thinking about games in terms of mechanics and dynamics is reductionism. Designers often think of players as just input and output, challenge and reward. We tend to see the 'play brain' (I've written about that in this column, too) and design for it, and we forget the 'art brain'.

The play brain is fascinated by machine and system, opportunities for learning and mastery. It's the part of you that implicitly understands that *The Last Of Us* is a sneak-stab-loot-craft machine, and wants to do that better. However, the art brain is the part that perceives the world as a vast web of context and meaning. The art brain is where social skills, associative reasoning and broad perspective live, and it tends to view the world in narrative. To the art brain, things have meaning. They feel right or wrong based on a hard-to-express set of criteria. It perceives the numinous. It's the part of your mind that thinks it can see beyond the borders of what you actually see, and that's how some game worlds become believable.

'The cake is a lie' was not just a sign scrawled on a wall; it was a doorway to an imagined world of who wrote it, why, and what they were dealing with. That's the numinous experience, and when we encounter it in games we are often willing to forgive a lot of the mechanics, the dynamics or even whether we're having fun or not. I also often say that numina are the gateway to thauma. *Skyrim* may be a little bit broken and *Mass Effect* might be a tad repetitive, yet because the player believes she sees more than is strictly there, she forgives – to a point.

The numinous sense is powerful, treasured, something not encountered every day, but it cannot sustain a game alone. A gameworld may be fictionally enthralling but it can still grow boring if the fun is entirely absent. An overcomplicated system with many breaks is rarely fun; at the same time, a simple system is often just a little fun engine that doesn't captivate the soul.

Art matters. Fiction matters. A sense of place and motion matter. Yet so do fun, accessibility and mastery. It's in the in-between space, in the optimal zone between order and disorder, the finite and the infinite, that the best games thrive.

Tadhg Kelly has worked in games, from tabletop to consoles, for nearly 20 years. Visit him at www.whatgamesare.com

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In The Click Of It



CLINT HOCKING

The last generation

Confession time: I am not that interested in the upcoming console war. The reason is that, when I look at what the proposed consoles are offering, I don't see anything important to me that I cannot have already on a current-generation console.

Sure, I can have better graphics, but the graphics on current-generation consoles are amazing enough. Sure, I can potentially buy games more easily through more robust online stores, but I'm not really constrained by an inability to buy a game at a store, so what does an online store offer me? And while I am looking forward to crossplatform compatibility and being able to engage with certain games on the couch or on the bus, this is all possible on current-gen hardware. Why do I need a new console?

When I lie back and stare at the ceiling and try to imagine the experience that I think will typify the next generation of gaming, I see something completely different to what the next-generation consoles are offering.

I imagine that some time before the upcoming console generation ends, I will walk into my house and pick up a controller. The controller will detect that it has been moved and it will connect to my television and to the phone in my pocket. I will browse through the games that are on my phone (which is now my console) and I will select one and play it using my controller. Full HD and 7.1 audio will stream from my pocket to my television. And I won't be playing *Angry Birds* for the iPhone 3G either, I'll be playing *GTAV*.

Of course, because I presume the above will be possible within the next five years, a great many other things will also be a part of this next-gen 'console' experience. First, and most importantly, independent developers (by this I mean companies of developers, as well as individual 'indie' artists working in their basements) will have the same potential reach as the big publishers do. This has a potentially massive destabilising effect on the current publisher-developer model, but before we write off a dozen multibillion-dollar companies we need to consider the second major effect: all these publishers will be able to very cheaply and quickly convert their back catalogues to these new platforms.



The experience that I imagine will typify the next generation is completely different to what next-gen consoles are offering

When you consider that porting a PS2- or Xbox-era title to a theoretical 2015 smartphone could probably be tackled by a handful of developers in a number of months, and you consider the potential of a few million sales at a price point of $5–10, it becomes quickly apparent that it is a worthwhile investment.

How many millions of players who enjoyed *Skyrim* would be delighted to buy *Morrowind* for $4.99 and play it using a controller on their TV, streaming it from their phone? This, of course, would not preclude them from also playing it using emulated thumbsticks on the touchscreen while on the bus. All those nights you stayed up an extra hour fast-travelling between Balmora and Vivec (and that mudcrab merchant south of Suran) to sell all your loot at the best prices – forget it, you can do it on the bus now.

And *Morrowind* is just one game; there are a thousand games that could be profitably ported from earlier console generations and made to run on current (or near-future) phones. *GTAIII* already runs on phones from two years ago. All things being equal – and admittedly it is more complicated than that – *GTAIV* will likely be running on smartphones within a couple of years.

The point is that this is not just a pipe dream: there are massive incentives for both small developers and large publishers to embrace this next generation. The companies that make the phones are even more strongly incentivised to make this happen, because they will get 30 per cent of everything.

So when I lie back and stare at the ceiling and imagine the experience, it just seems totally inevitable. Everybody wants it from a gaming perspective, everybody needs it from a financial perspective, and the technology is rolling out and converging towards it rapidly. The biggest hurdle I see currently is that wireless HDMI is still not very good and might be several years out. But if this is the biggest hurdle, having to dock your phone with the TV in order to get a full HD experience is an incredibly minor compromise – in fact, even in a full wireless HDMI era, heat dissipation might remain enough of an issue that you wouldn't want to keep your game console in your pocket anyway.

All of this is not to write off the next generation of consoles as a waste of time. I suspect the total conversion to the experience described above is going to take at least a full console cycle. Those who adopt the new consoles early will see the full benefits of what they have to offer. Those who abandon ship and embrace these 'consoles of the future' will undoubtedly have to deal with a lot of headaches – at least in the near term.

But the degree to which smartphones successfully usurp the console market over the next half decade will, I suspect, determine whether it will be worthwhile for console manufacturers to even attempt a next-next generation.

Clint Hocking lives in Seattle and works at Valve Software. He blogs at www.clicknothing.com

Word Play



JAMES LEACH

The never-ending story debate

It was a desperate attempt to avoid the latest FPS army games, in which I know I'll get sniped from 3,000m by an invisible eight-year-old savant with a nifty line in sexual insults. I went to my groaning game shelf (just below my Groening animations shelf) to pick an oldie-but-goodie shooter. *Far Cry 3* fell unbidden into my hand… after I reached up and grabbed it.

I didn't like it. I don't like playing any old games, really. The nostalgia associated with games lies in remembering them and, more importantly, the good time you had playing them. Actually playing them today is an exercise in frustration and embarrassment that you once thought this was the best thing ever. The past is a foreign country – one of the dangerous ones, too. Never go back. Even though *Far Cry 3* only came out at the end of last year.

I took to doing what I always do when not utterly immersed in a game (assuming Bargain Hunt hasn't started): I thought about the writing. It's widely opined by people (I can't quite bring myself to write the phrase 'the gaming community') that *Far Cry 3* has an excellent story, excellently written. If true, and I'm in no special position to judge, it could be down to Jeffrey Yohalem. He did most of it, and he is responsible for saying the following: "In my mind, the gameplay has to be the story of the game. I participate in the design of that, but also the point is to deliver a meaning."

I totally get the first part of that utterance by old Jeff (I don't actually know him). What you *do* is the tale, not what you are presented with. However, when Jeffy (I've never met him) talks about delivering a meaning, I'm not so sure a) what his meaning is, and b) whether he's totally right. Nevertheless, a shout out to the Jeffster for nailing the first bit (in fact, I don't think I even know what he looks like).

If the story is the tale, the job of the narrative engineer, or 'writer' as I pretentiously like to call us, is to intervene as little as possible. Back to *Far Cry 3* I went. Sure enough, less is more and because you pretty much know what to do (it's a firstperson shooter), you let the elements fall into place in your head. It's a gaming convention that if you're not actively being told you're going the wrong way, you're certainly going the right way.



It's a gaming convention that if you're not actively being told you're going the wrong way, you're going the right way

Similarly, if you can pick up and carry that obscure artefact, you should do so. If it weren't important, it wouldn't be portable. How much else do you need to know? The ultimate aim of the game? Read the back of the slipcover. Other than that, you need to be aware that anyone with the title 'Doctor' or 'Colonel' is a bad guy, and probably *the* bad guy; the first female you meet will be stunning and will try to double-cross you or otherwise attempt to contrive your early demise; and that when there are three barrels stacked up you must shoot them, for they will explode and probably harm the various henches crouching (with a stunning lack of tactical awareness) behind them.

Armed with these truisms, you can win any firstperson game. My regular readers will also recall that a tiny girl in a stained nightie who, ripped teddy under arm, is unafraid of walking into dark places alone, might also be a character worth keeping an eye out for. If she's a GP or has a military title, though, don't say I didn't warn you.

I propose a game. It's called *Shooter*. You play Shooter (or the shooter – it's never clear whether this is his name or simply what he is; or whether it's just the name of the game, which it is).You are airlifted to Generic City. Something has ravaged this once stunningly average and, owing to storage limits, surprisingly small metropolis. As you climb out of the clearly-Avatar-inspired flying machine, you bang your head on the coathanger hooky thing by the door. You lose your memory. As you explore, you meet a girl called (or not) Rebel. She's stunning despite six months of battling evil and not washing. She explains that in the heart of Generic City is a Thing. This must be destroyed, stolen (if it's small enough) or switched off (if it's connected to the mains).

Next you meet Desserter. He works for Dr Colonel but says he is on the run owing to his conscience. 'On the run' is unlikely as he is obese (hence Desserter: he loves his pudding). He warns you about Rebel but you fear that, as he's fat and lonely, it's a trap. An ambush occurs at the corner of Ambush Street and Chokepoint Avenue. Desserter runs to save you (well, waddles with a swishing noise as his thighs rub together) but seeing this, you double-tap him with your railgun. At least one of the rails (or whatever they fire) gets as far as his internal organs and he bursts like an overladen Lada on a Russian dashcam video.

Rebel consoles you and urges you to head towards the Thing. But at this point you notice that there's a tiny girl in a grubby dress holding a teddy… oh, this is useless. If I'm going to do this properly, it really does need a story. The more the better. What, I think, the Jeffmeister is getting at is that story is vital. Just let people find it sparingly, and thus make it their own. I still don't know why he says we have to deliver a meaning. I'll ask him down the pub, if we're ever in the same pub by sheer coincidence (and someone I'm with recognises him and points him out to me).

James Leach is a BAFTA Award-winning freelance writer who works on games and for ad agencies, TV, radio and online


King



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